HANDBOOK

Flood Control Zone Advisory Committees

Santa Clara Valley Water District

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Description of District's Flood Control Activities

for the

Flood Control Zone Advisory Committees

January 1995
Partial Revision January 1999

Santa Clara Valley Water District

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ADDITIONAL PUBLICATIONS

Your Water, Its Come a Long Way
Creeks in Santa Clara County
What is the One Percent Flood? (September 1993)
Adopt-A-Creek Program (August 1997)
1996/97 Annual Performance Report (January 1998)
Even When the Rains Stop, it Doesn't Mean We Do (October 1998)
Facts About the Santa Clara Valley Water District (October 1998)
Flood Control in the Santa Clara Valley—An Overview
Stream Care Guide for Santa Clara County

PURPOSE OF HANDBOOK

This handbook has been prepared in response to a request of the Board of Directors for an orientation and reference manual to be used by members of the Santa Clara Valley Water District Flood Control Zone Advisory Committees.

It presents, in brief form, pertinent information about the District and its major flood control activities. This information is basic to the work of the Advisory Committees. Supplemental and detailed information is available at the District office.

Copies are available from the Clerk of the Board, 5750 Almaden Expressway, San Jose, California 95118.

GENERAL DESCRIPTION

What is the Santa Clara Valley Water District?

The Santa Clara Valley Water District is a local agency of the State of California created by an Act of the State Legislature to provide specialized public services. The District conserves, imports, treats, distributes, and reclaims water as well as conducts flood control programs for everyone in the County. The geographic boundary of the District is the same as that of Santa Clara County.

The District's predecessor originated in 1929 when the people voted to create a water conservation district. That district, which constructed vitally important water conservation reservoirs and percolation ponds, existed until 1968, when it consolidated with the County flood control district. Consolidation of the two districts improved the efficiency and effectiveness of their far-reaching water management programs. On January 1, 1974, the District's current name came into effect. A list of significant dates in the District's development and a list of general facts about the District are included in Appendix A, "District Statistics."

The District is governed by a Board of Directors, a seven-member board, which establishes District policy (refer to Exhibit I-A). Five directors are elected by voters within the five County supervisorial districts. Two are appointed to serve at large by the County Board of Supervisors. One of these must reside in the North County area, the other in the South County area. The maps of Exhibit I-B.1 and I-B.2 show the geographical areas represented by each of the Board Members while Table I-1 lists the name, address, phone number and term of office for each member of the Board. District Board meetings begin at 9 a.m. on the first and third Tuesday of each month at 5750 Almaden Expressway, San Jose, California 95118-3686. The current schedule of meetings is shown on Table I-2. The public is welcome and encouraged to attend the District Board meetings.

Nearly 550 people are employed at the District's four main facilities. These are the administration and maintenance offices located on Almaden Expressway, just south of Blossom Hill Road in San Jose, and three water treatment plants that treat mostly imported water (and some local water) for sale to private and municipal water retailers. The Rinconada Water Treatment Plant is on More Avenue in Los Gatos, the Penitencia Water Treatment Plant is in East San Jose at the end of Whitman Way, and the Santa Teresa Water Treatment Plant is located on Greystone Lane in the San Jose Almaden Valley. The District's organization is shown graphically in the diagram of Exhibit I-C.

Effective Water Management

Through effective water management, the Santa Clara Valley Water District maintains an adequate water supply and, in anticipation of periods of too much water from rainfall, develops flood damage reduction programs.

The District uses a full range of water resource management techniques to meet community needs for adequate water supplies: development and maintenance of dams/reservoirs and groundwater recharge facilities, importation of water, water treatment, water quality monitoring and enhancement, water savings, and wastewater reclamation.

To provide flood protection for the community, the District again uses a full range of management techniques ranging from advising local jurisdictions on land use planning matters through structural flood damage reduction works all the way to streamflow forecasting systems.

All this is accomplished through the use of teams of engineers, maintenance workers, planners, environmentalists, and appropriate management and office support persons. The work is planned and produced in coordination with public and private institutions, advisory committees, citizens committees, and members of the public.

MISSION, GOALS, AND OBJECTIVES

The **Mission** of the Santa Clara Valley Water District is to conduct a sound water management program that serves the community. This Mission can be fulfilled through the accomplishment of these **Goals**:

- Provide a supply of water, adequate as to both quantity and quality, needed to meet the desired quality of life in the community.
- Provide protection against flooding in a manner that maintains the desired quality of life in the community.
- Coordinate all other community water-related programs to achieve full water management.

These Goals are met through a series of objectives that direct the activities of the District. The following list of objectives is a dynamic outline that will change as the desires and needs of the community change:

General Objectives

- Consider the desires of the community in all District programs and projects.
- Perform in an efficient and effective manner within the District organization, with the community, and with other governmental units.
- Protect the environment in the formulation and execution of District programs and projects.
- Protect the economic well-being of the community in the formulation and execution of District programs and projects.
- Provide for and encourage compatible multipurpose use of District facilities, including hydroelectric development.
- Provide environmental impact mitigation measures, such as revegetating District projects, as appropriate.

Water Supply Objectives

- Optimize conservation of all water resources.
- Insure optimal primary usage of local water resources with adequate importation of supplemental supplies.
- Plan for alternative supplemental water supplies, where feasible, including reclamation of waste water.
- Preserve and protect the local watersheds and groundwater basin.
- Preserve and enhance water quality, both surface and underground.

Flood Damage Reduction Objectives

- Provide flood protection by management of the natural floodplain or of a modified floodplain, using the more structural types of channelization only where other measures are impractical.
- Give priority to protection against flooding of developed areas, with the areas of greatest potential damage having the highest priorities.
- Encourage proper controls to prevent incompatible land uses in areas subject to flooding.
- Discourage future land use practices which will subject existing urban areas to additional flooding.
- Insure that flood control measures taken to assist an area shall not induce flooding upon any other area.
- Maintain District facilities to ensure they continue to provide the level of flood protection for which they were constructed, both to protect the public's investment and to comply with regulations of the federal flood insurance program.

TABLE I-1
SCVWD Board of Directors

Name	District	Term Expires
Rosemary C. Kamei	1 (elected)	January 2003
Tony Estremera	At Large	January 2002
Robert W. Gross, Ph.D.	3 (elected)	January 2001
Larry Wilson*	4 (elected)	January 2003
Gregory A. Zlotnick**	5 (elected)	January 2001
Joe Judge	2 (elected)	January 2001
Sig Sanchez	At Large	January 2000

Mailing Address:

SANTA CLARA VALLEY WATER DISTRICT
5750 Almaden Expressway
San Jose, CA 95118-3686

Clerk of the Board Office (408) 265-2600

*Chair
**Vice Chair

TABLE I-2
SCVWD Board of Directors Schedule of Meetings

Meeting Time:	9:00 a.m.
Meeting Date:	First and Third Tuesday of each month Note: If there is a fifth Tuesday, an evening meeting is held at 7:30 p.m. at the same meeting location
Meeting Place:	5750 Almaden Expressway, San Jose, CA 95118-3686
Telephone:	(408) 265-2600
Term of Office (of Officers):	From the first Monday in January of each year to the first Monday in January of the next succeeding year or until the election and qualification of their successors.

EXHIBIT I-A

About the SCVWD Board of Directors (excerpt from the District's Web Site)

About the Santa Clara Valley Water District Board of Directors:

Santa Clara Valley Water District (District) is a special district responsible for water supply and flood management in Santa Clara County. The District is organized under the Santa Clara Valley Water District Act, Chapter 1405 of the Statutes of 1952, as amended (West's California Water Code Appendix Chapter 60).District Act.

The District has broad powers relating to all aspects of management of flood and storm waters within the District. It is also responsible for storage and distribution of water for use within its jurisdictional boundaries and is obligated to provide water sufficient as to both quantity and quality for present and future beneficial use by the lands and populations within the District.

The District is governed by a seven member board of directors. Five of the members are elected, one from each of the five County supervisorial districts, and the remaining two directors are appointed by the Santa Clara County Board of Supervisors to represent the County at large. The directors serve overlapping 4-year terms.

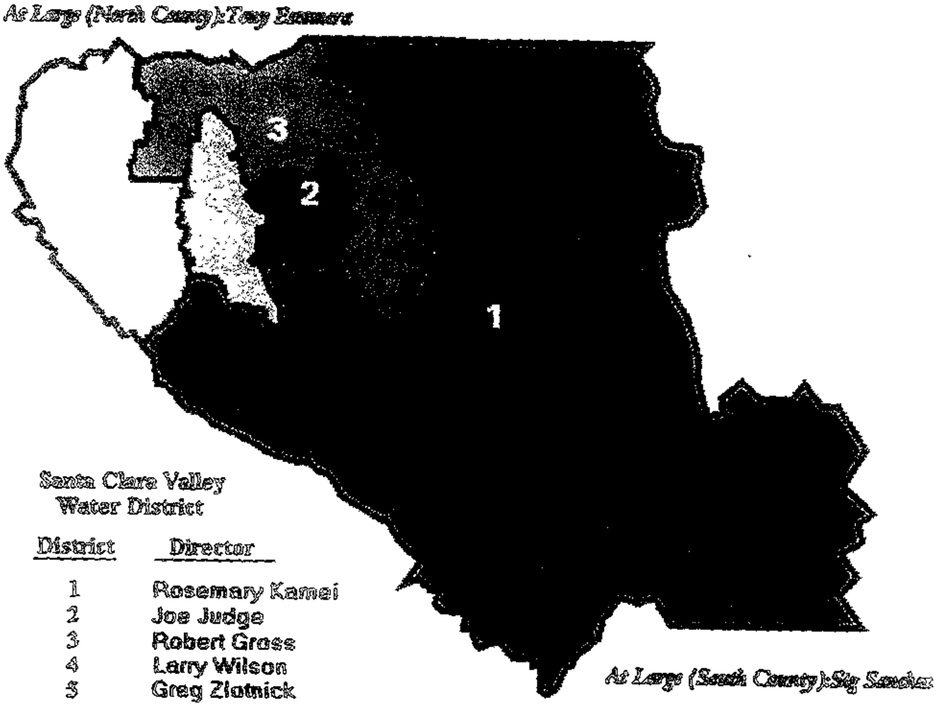
Role of the Water District Board Members

The Board establishes policy on the District's mission, goals, and operations. It represents the general public in deciding issues related to water supply and flood control. The Board also has the authority to adopt ordinances that have the force of law within the District.

The Board reviews staff recommendations and decides which policies should be implemented in light of the District's mission and goals. The Board also monitors the implementation of its policies.

The District's General Manager organizes the details of project implementation. The Board supervises management to see that the work is accomplished on time and efficiently.

EXHIBIT I-B.1
FC Zone Directors and Map of Their Representative Area (Map 1 of 2)


At Large (North County):Tony Estremera
3
2
1
At Large (South County):Sig Sanchez

Santa Clara Valley
Water District

District	Director
1	Rosemary Kamei
2	Joe Judge
3	Robert Gross
4	Larry Wilson
5	Greg Zlotnick

District I: Town of Los Gatos, Cities of Monte Sereno, Morgan Hill, Gilroy and the Southern Part of San Jose (Mainly South of Koch Lane and South of Capitol Expressway Senter Road)(By Monterey Road and Coyote Road to 101).

District II: Portion of San Jose (Downtown, Eastside South of McKee Road, West of Kirk Road, Fleming Avenue and Mt. Pleasant Road) North of Cunningham between Capitol Expressway and Flint Avenue, Area South of Quimby West of South White Road and North of Aborn Road, West of 101 North of Coyote Road, Senter Road Monterey Highway and Capitol Expressway to Almaden Road, North of Koch Lane and East of Meridian Avenue and NorthEast of Park Avenue.

District III: Cities of Milpitas, Portion of San Jose (Portion of Evergreen Area, Berryessa Area, Alum Rock Area North of McKee Road, and Alviso Area, Portion of Sunnyvale (South of Fremont Avenue).

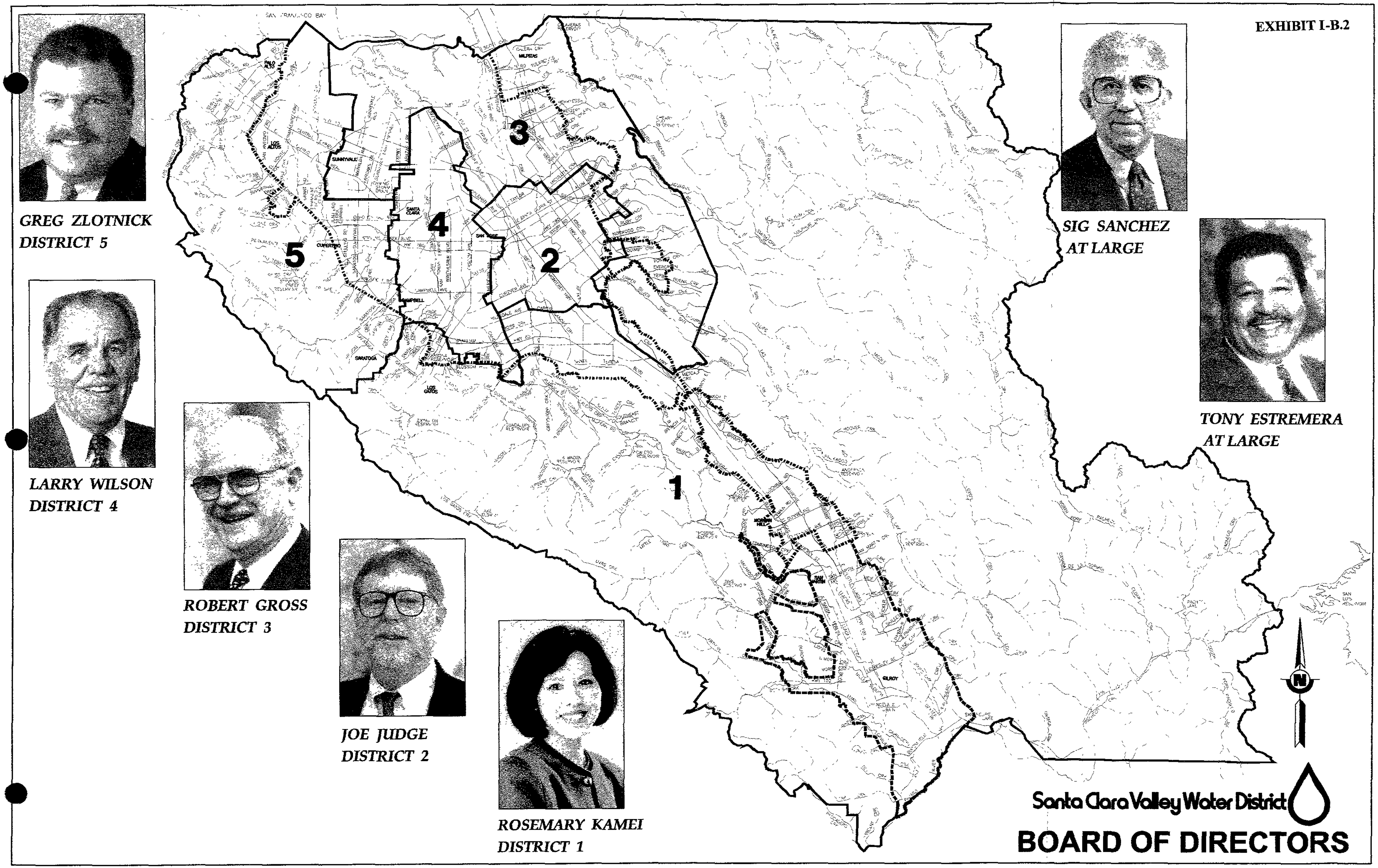
District IV: Cities of Campbell, Santa Clara and Portion of San Jose (Mainly the area between Meridian Avenue and Lawrence Expressway from Santa Clara to Los Gatos)

District V: Cities of Palo Alto, Los Altos, Los Altos Hills, Mountain View, Cupertino, Saratoga, and Portions of San Jose (Portion West of Lawrence Expressway) and Sunnyvale Portion south of Fremont Ave, Stanford campus

South-At Large: [Area shown in District 1]

North-At Large: [Area shown in District 2, 3, 4 and 5]

EXHIBIT I-B.2



GREG ZLOTNICK
DISTRICT 5

LARRY WILSON
DISTRICT 4

ROBERT GROSS
DISTRICT 3

JOE JUDGE
DISTRICT 2

ROSEMARY KAMEI
DISTRICT 1

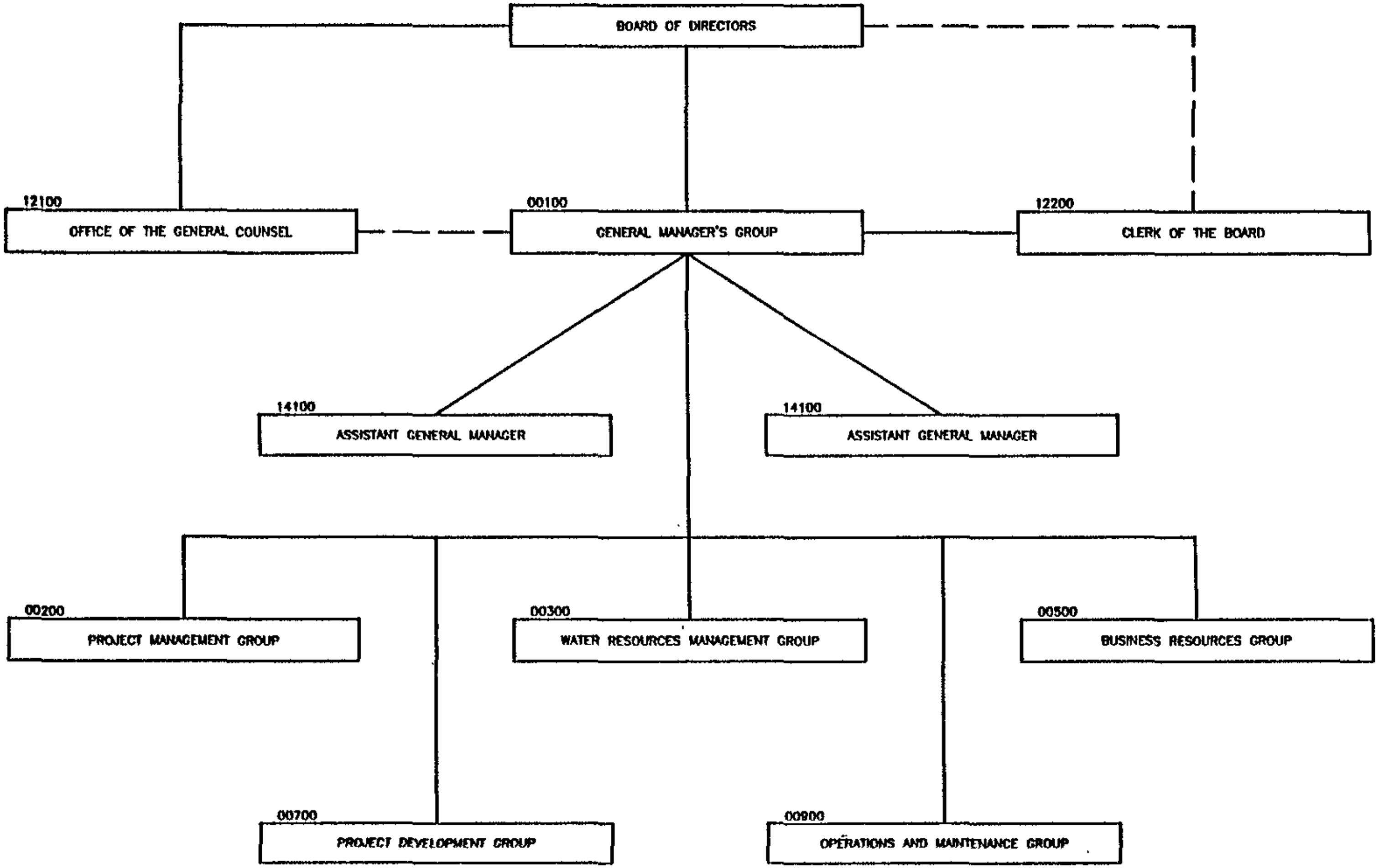
SIG SANCHEZ
AT LARGE

TONY ESTREMERA
AT LARGE

Santa Clara Valley Water District

BOARD OF DIRECTORS

EXHIBIT I-C
District Organizational Chart


BOARD OF DIRECTORS
12100
OFFICE OF THE GENERAL COUNSEL
00100
GENERAL MANAGER'S GROUP
12200
CLERK OF THE BOARD
14100
ASSISTANT GENERAL MANAGER
14100
ASSISTANT GENERAL MANAGER
00200
PROJECT MANAGEMENT GROUP
00300
WATER RESOURCES MANAGEMENT GROUP
00500
BUSINESS RESOURCES GROUP
00700
PROJECT DEVELOPMENT GROUP
00900
OPERATIONS AND MAINTENANCE GROUP

November 22, 1998

FLOOD CONTROL ZONES

Today, a 1 percent flood could potentially inundate about 78,000 acres throughout the County and cause about $400 million of damage (See Appendix B for discussion of the 1 percent flood.) Exhibit II-A presents a map of areas in the County subject to flooding from the 1 percent flood based on 1985 conditions and an inventory of District flood control facilities is included in Appendix A.

PHYSICAL BOUNDARIES

The geographical area of the District is divided into five flood control zones and one area that is not included in a flood control zone. The five zones are the Northwest, the North Central, Central, East, and South Flood Control Zones. Their boundaries and the location of District Creeks are shown on a map of the District in Exhibit II-B. These zones approximately conform with the major watersheds affecting the valley floor. Each has a separate flood damage reduction program and each is a separate fiscal entity with its own revenues and expenditures. The area of the District not included in a flood control zone is in the northeast section of the County. That area is part of a watershed with streams that flow north into Alameda County prior to flowing into San Francisco Bay.

The District's four northerly flood control zones outfall into the San Francisco Bay. The **Northwest Zone** is made up of several small watersheds extending from the San Mateo County line south through the Stevens Creek watershed. The **North Central Zone** boundaries are set by the San Tomas Aquino and Calabazas Creek watersheds. The Guadalupe River and its tributaries make up the **Central Zone** boundaries. The **East Zone**, the fourth zone to outfall into the San Francisco Bay, consists of the Coyote Creek watershed. The **South Zone** includes the area which drains into the Pajaro River and ultimately into Monterey Bay. Individual maps of each of the flood control zones showing limits of flooding and the principal creeks are shown in Exhibits II-C through II-G.

FLOOD DAMAGE REDUCTION PROGRAM

Each of the flood control zones has its own plan of action and activities for meeting the District's flood related objectives. This plan of action is referred to as a flood damage reduction program. Each flood damage reduction program is concerned with the various aspects of identifying flooding problems, preparing solutions to the flooding problems, and implementing those solutions.

The term "flood damage reduction" is used instead of "flood control" to acknowledge the fact that it is not feasible to completely eliminate potential flood damage from floods of all magnitudes.

REVENUES

There are five primary sources of revenue potentially available to the flood control zones to finance flood damage reduction activities. These sources are (1) the District's annual allocation of the County's 1 percent tax levy in each flood control zone, (2) the annual flood control benefit assessment levied on all parcels within each of the five flood control zones, (3) federal and state funds for federal flood control projects, (4) funding from city redevelopment projects, and (5) funding or capital improvements provided by private development. The District Board of Directors' current policy is that all revenues of a particular zone are to be spent within that zone.

Ad Valorem Taxes

A primary source of funding for flood damage reduction projects has been the ad valorem property tax within each flood control zone. This tax is upon privately owned land and improvements in each of the five zones. Until 1978, the tax rate was levied by the Board on a zone by zone basis. Since Proposition 13 in 1978, however, the District has received an allocation of the County's 1 percent tax levy in each flood control zone based on the average zone tax revenues in the 3 years prior to Proposition 13.

Benefit Assessment

The second primary source of income to fund flood damage reduction is the benefit assessment program. The District Board initiated this program in June 1981 and it was continued by the electorate in June of 1982 for more years subject to an imposed annual rate increase limit of 2 percent. To accelerate construction of flood control projects, the electorate approved changes to the benefit assessment program in 1986 in the Northwest, Central, East, and South Zones and continued the program in the North Central Zone in 1990. The rates were increased in all but the North Central Zone, and the annual increase limit for all zones was changed to the annual increase in the Bay Area Consumer Price Increase (CPI). The programs in each zone expire June 30, 2000, except for authorized long-term debt repayment that is entered into prior to June 30, 1995 in the Northwest, Central, East, and South Zones or June 30, 2000 in the North Central Zone.

Unlike taxes based upon property value, benefit assessments are levied on each parcel of land within the five flood control zones based upon the benefit each parcel receives from flood damage reduction measures. The benefit assessment enabling legislation permits the benefit to each parcel to be determined based upon the proportional storm water runoff for that parcel. To accomplish this, the following five categories of land use and their runoff factors have been adopted:

	Land Use Category	**Runoff Factor**
A.	Commercial and industrial	.8
B.	Apartments, schools, churches	.6
C.	Single family residential, small multiple (2-4 units), condominiums and townhouses	.4
D.	Utilized agricultural	.005
E.	Nonutilized, undisturbed agricultural, salt ponds, open space	.0015

Until the adoption of the benefit assessment program in June 1981, the North Central Flood Control Zone had a separate tax to repay its general obligation bonded indebtedness. This tax was in addition to their allocation of the County's 1 percent tax. With the implementation of the benefit assessment program, the Board of Directors discontinued the bond tax levy in that zone and the bond debt service is now paid from the zone's allocation of the 1 percent tax.

Federal and State Funds

Another potentially large source of financing is provided by the federal government and the State of California for federal flood control projects within Santa Clara County. When a federal project is authorized by Congress or by existing federal statutes, funds are appropriated to cover the study costs and the construction costs of the flood control facilities. The State of California contributes funds for a portion of the cost of rights of way and the relocation of bridges and utilities. The State portion varies according to a complicated formula but is generally about two-thirds of the nonfederal costs. The remaining one third of the non federal costs and all maintenance costs are borne by the local sponsoring agencies (usually the Water District through its flood control zones).

Redevelopment Funds

When a flood problem exists within a designated redevelopment area and that problem is identified as one of the problems contributing to a blighted condition as defined under redevelopment law, tax funds raised within the redevelopment area can be used for flood control purposes. The funds must be used solely for work necessary to protect the redevelopment area but need not solely be used for projects located within the redevelopment area. For example, funds could be used for an upstream reservoir if such a facility would help solve the flood problem in the downstream redevelopment area. This method of financing has not been used very often in Santa Clara County.

Private Development

A fifth method of funding flood damage reduction projects is the use of private development capital. Although this method is feasible under many circumstances, it has historically been applied only in the case of small tributary streams. Under this procedure, the developer of a parcel of land will construct, at developer's cost, the facilities necessary to protect the development. The construction of these facilities is usually one of the conditions of development recommended by the Water District and imposed by the City or County planning agency.

EXPENDITURES/BUDGET PROCESS

In order to ensure that available revenues for each of the zones are used efficiently in carrying out the flood damage reduction program for each zone, the District goes through an extensive annual budgeting process. The annual budget goes through many stages of review, including review by the various flood control advisory committees and a public hearing, before it is finally adopted by the Board of Directors. (The Flood Control Advisory committees are the subject of Section III.)

The budget is developed in a program budgeting format. Program budgeting, as used by the District, identifies all of the costs and impacts of each project proposal. It has four basic characteristics as it relates to the flood control zones:

1. It determines the various programs (categories of activities and projects) that must be carried out to meet the objectives of the District.

2. It considers all of the pertinent costs of activities and projects within a program, including capital expenditures.

3. It provides a plan for measuring costs and effectiveness of alternative ways of reaching the identified objectives.

4. It projects programs and program costs into the future on a planned and controlled basis so that the budgeting process is continuous from year to year.

The programs and their associated activities as used by the District in its budget process for each of the flood control zones are:

- **Planning Program**: This includes labor and contract services for both long range and detailed project planning up to but not including the design activity. Planning includes all planning studies, preparation of Engineer's Reports, Environmental Impact Documents, public hearings and certain special studies.

- **Construction Program**: This includes all labor, use or purchase of equipment and contractual services for design and the construction of a new project or a substantial improvement to the life or value of an existing physical project. Acquisition of new physical assets such as right of way are included in this program.

- **Maintenance Program**: This includes all work performed on District facilities which results in maintaining physical projects or equipment in working condition. It also includes emergency activities identifiable with a specific facility.

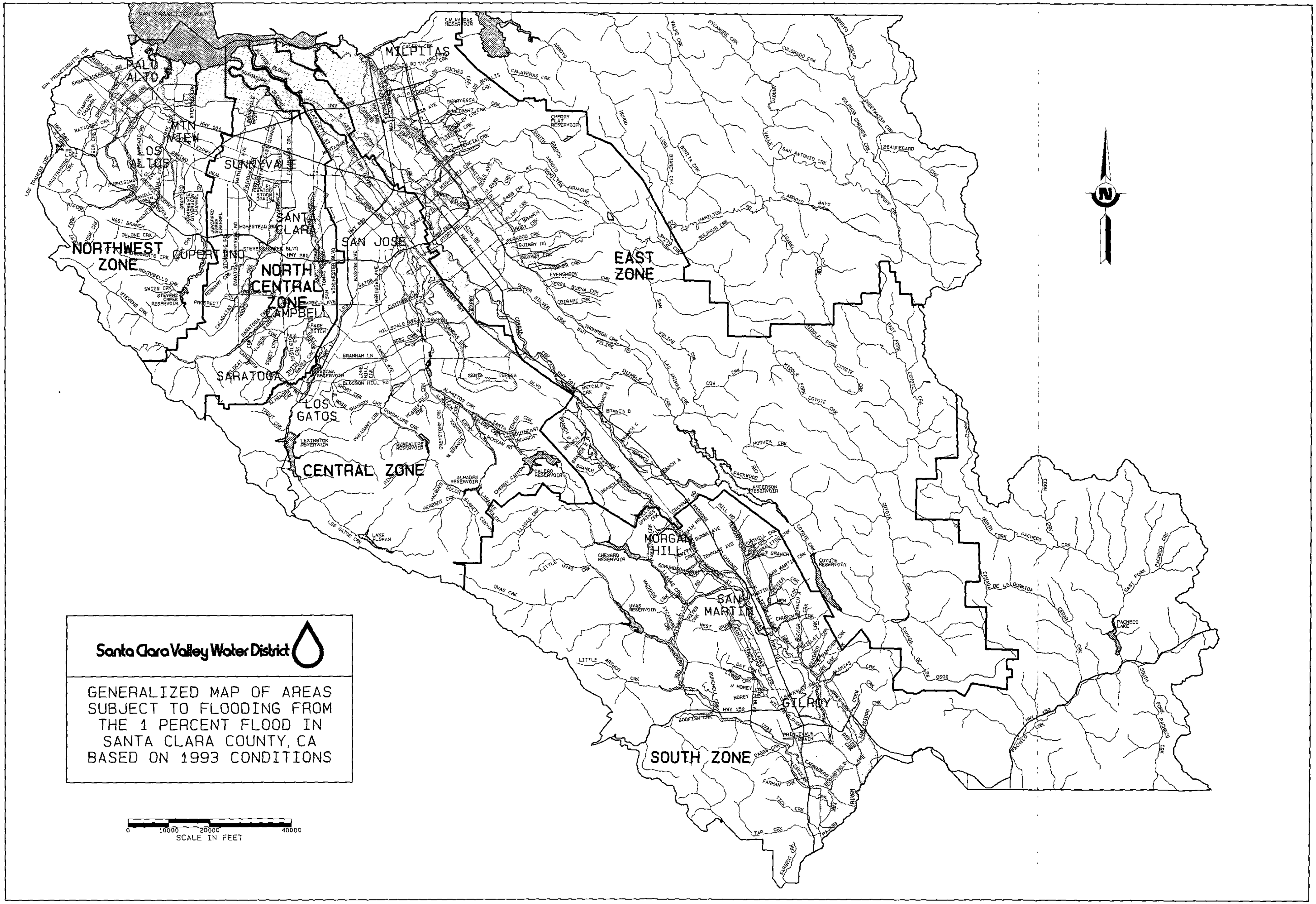
- **Operations Program**: This includes all work necessary for land ownership management and the application of District flood control ordinances.

- **Administration Program**: This includes the cost of insurance, debt service, flood emergency activities, and other general activities that cannot be identified with a specific project or facility.

Program budgeting for the District requires each proposed scope of work to be identified with and budgeted to a specific program. This usually results in a progression of a project through the various programs. For instance, the need for a flood control structure must first be identified through a planning process, then it is designed and constructed, and finally maintained, and operated. The progression through these programs depends upon the size of the project, the priority it has been assigned, the availability of staff, the cost, and the available funds.

Section IV discusses the project development process that the District uses to implement needed flood damage reduction measures.

EXHIBIT II-A



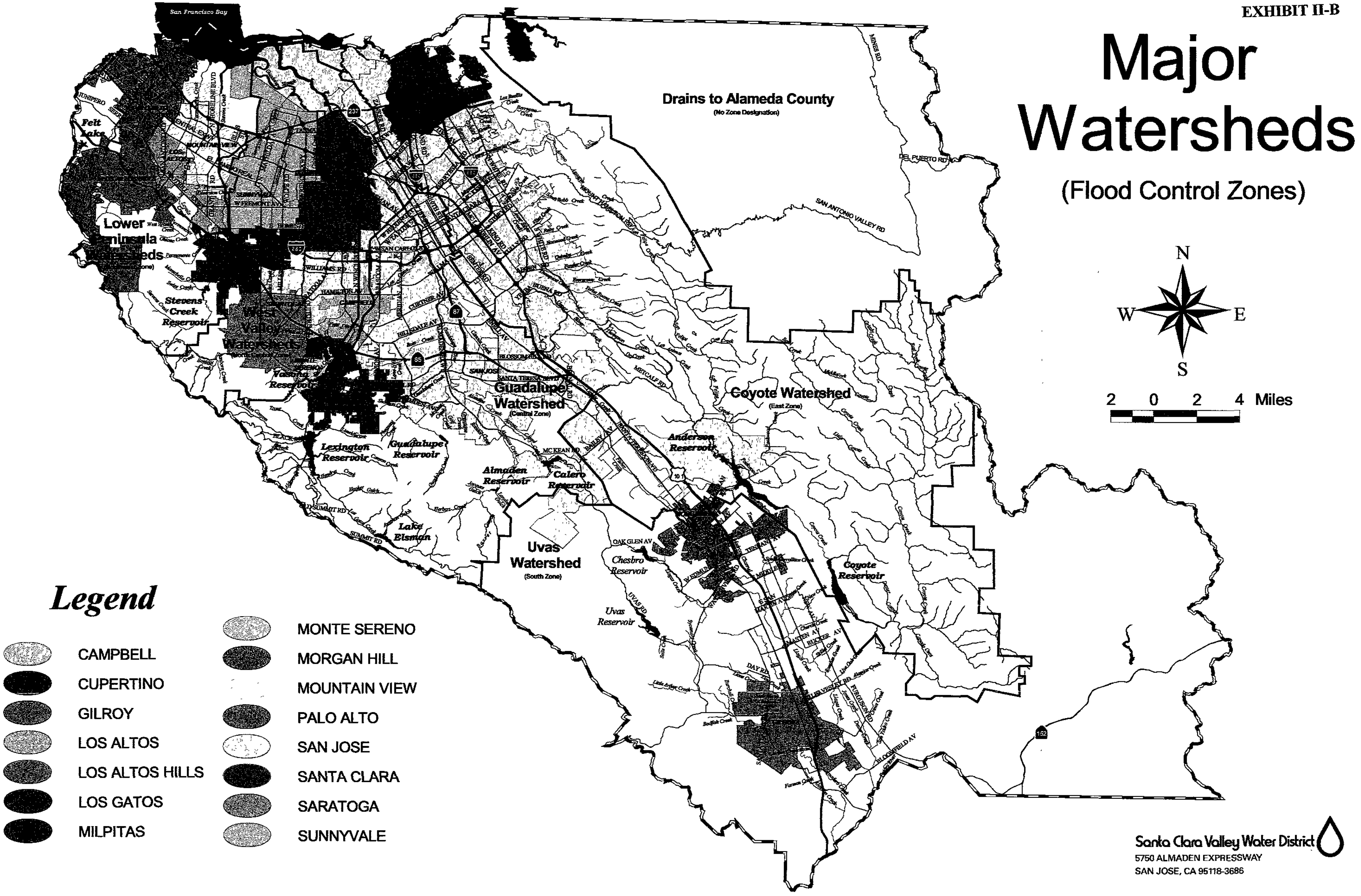
Santa Clara Valley Water District

GENERALIZED MAP OF AREAS
SUBJECT TO FLOODING FROM
THE 1 PERCENT FLOOD IN
SANTA CLARA COUNTY, CA
BASED ON 1993 CONDITIONS

EXHIBIT II-B

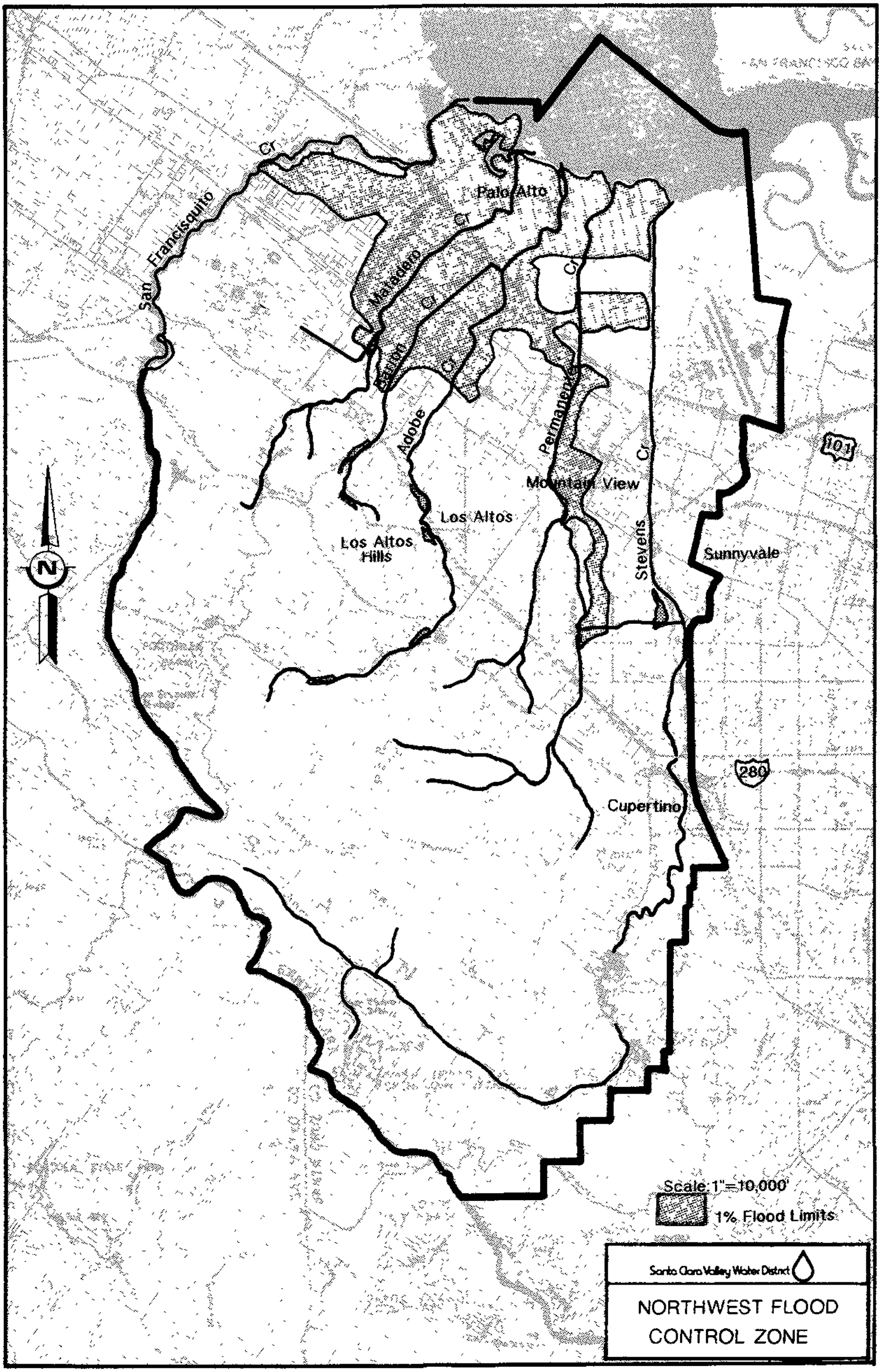
Major Watersheds

(Flood Control Zones)



Santa Clara Valley Water District
5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686

EXHIBIT II-C



NORTHWEST FLOOD CONTROL ZONE

EXHIBIT II-D

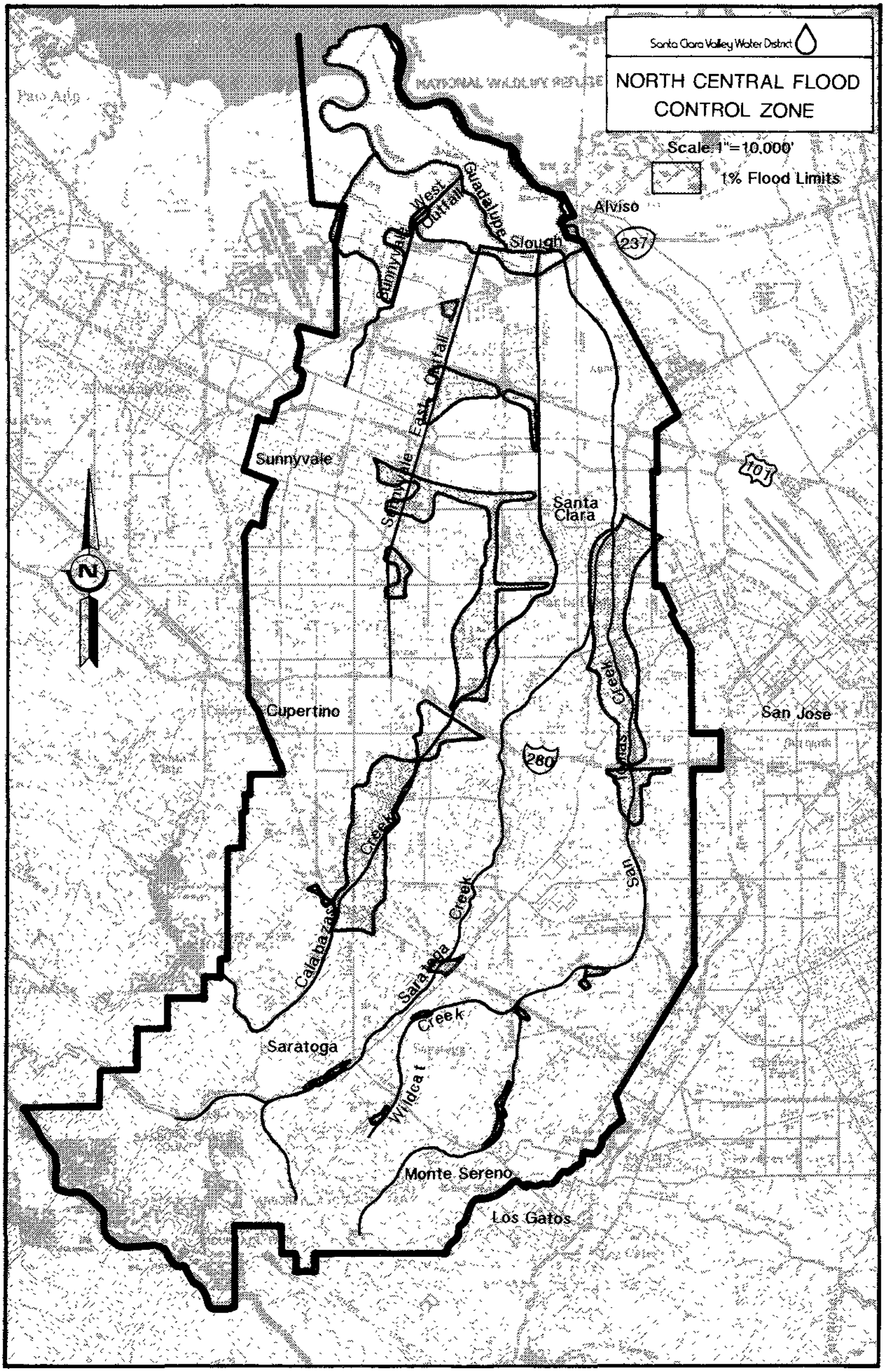
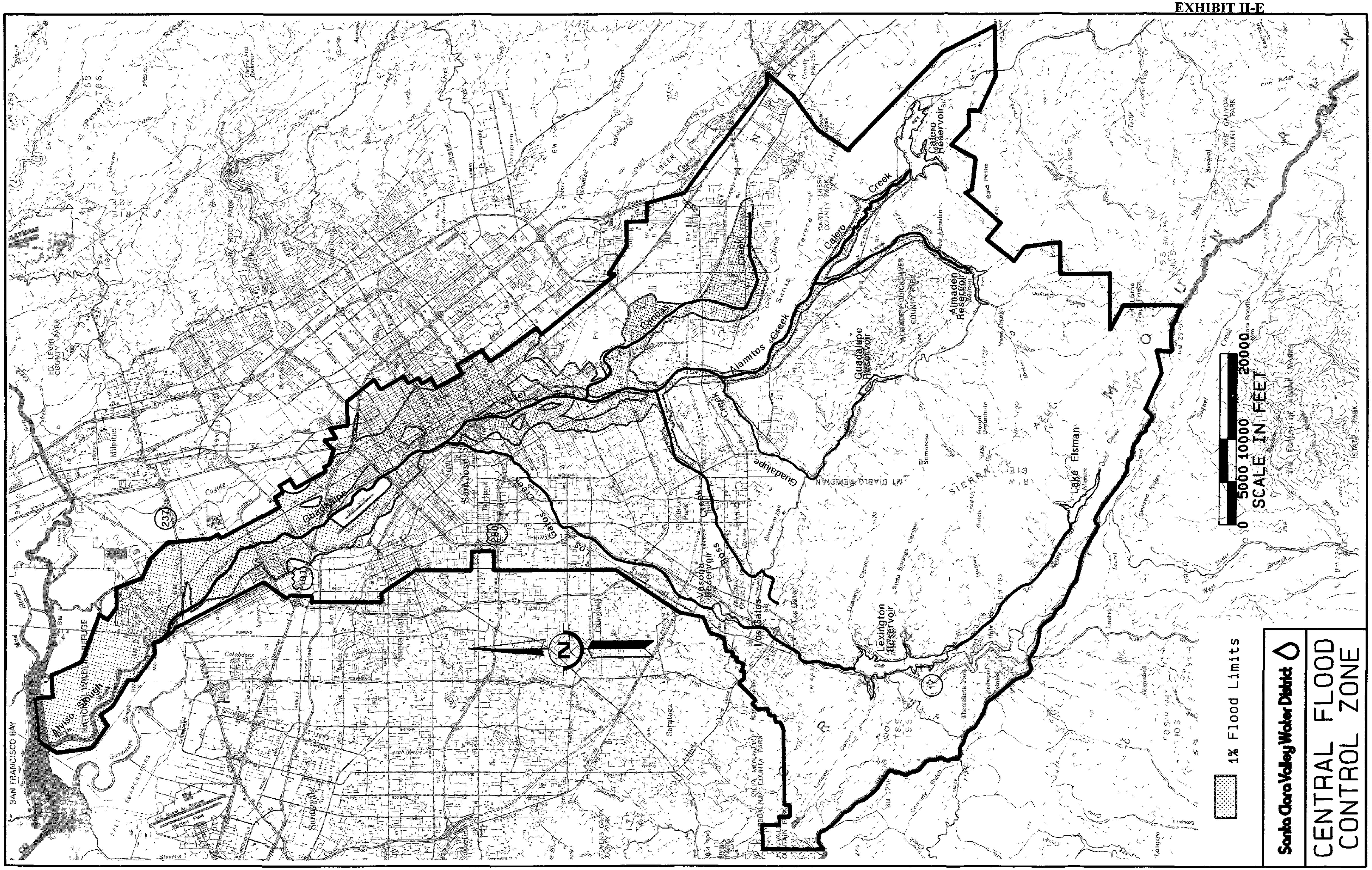

Santa Clara Valley Water District
NORTH CENTRAL FLOOD CONTROL ZONE
Scale 1"=10,000'
1% Flood Limits
NATIONAL WILDLIFE REFUGE
Palo Alto
Alviso
237
Guadalupe
Slough
West
Outfall
Sunnyvale
Sunnyvale East Outfall
Sunnyvale
Santa Clara
101
San Tomas Creek
San Jose
Cupertino
280
Calabazas
Creek
Saratoga
Creek
Saratoga
Wildcat
Creek
Monte Sereno
Los Gatos
N

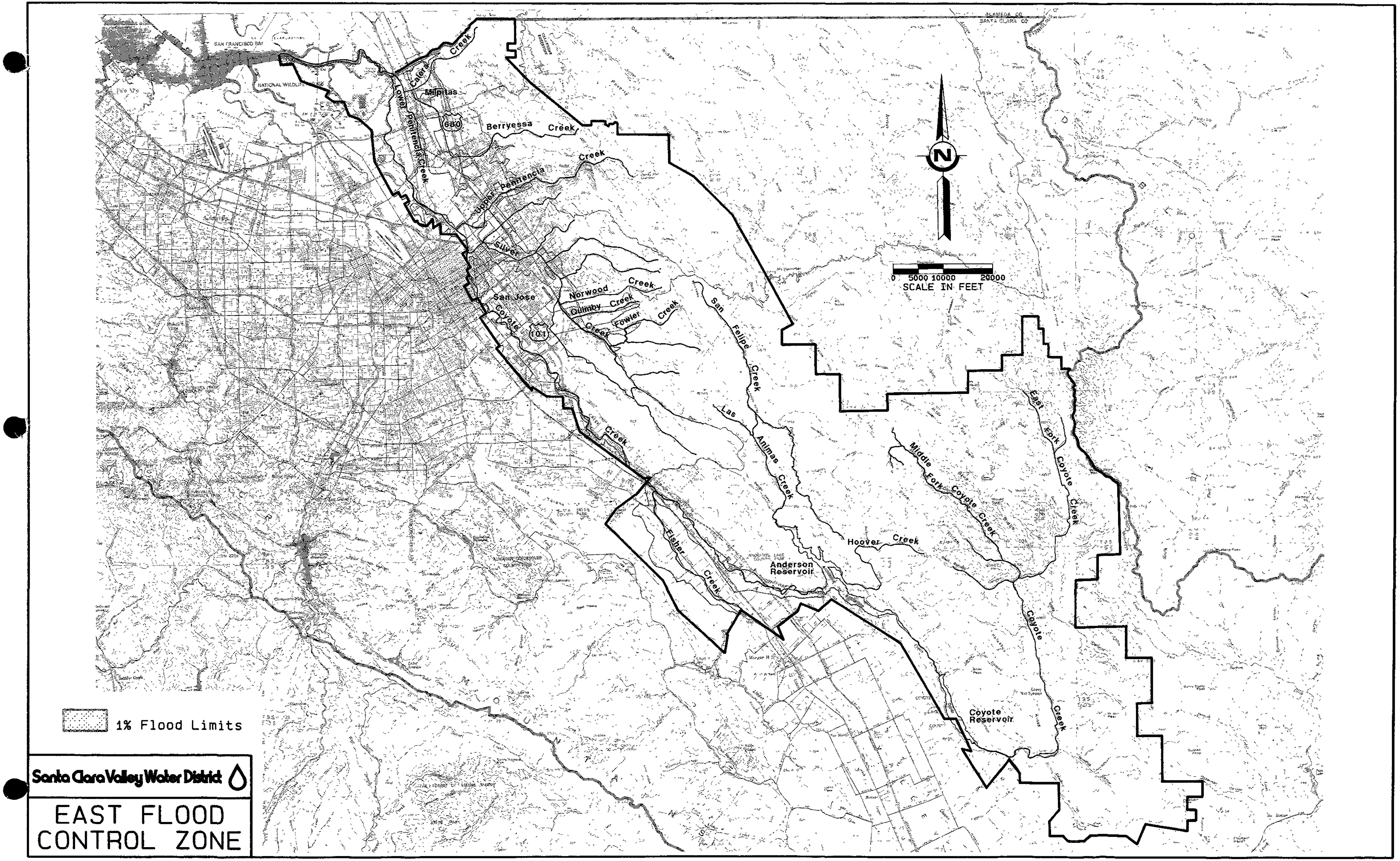
EXHIBIT II-E



Santa Clara Valley Water District

CENTRAL FLOOD CONTROL ZONE

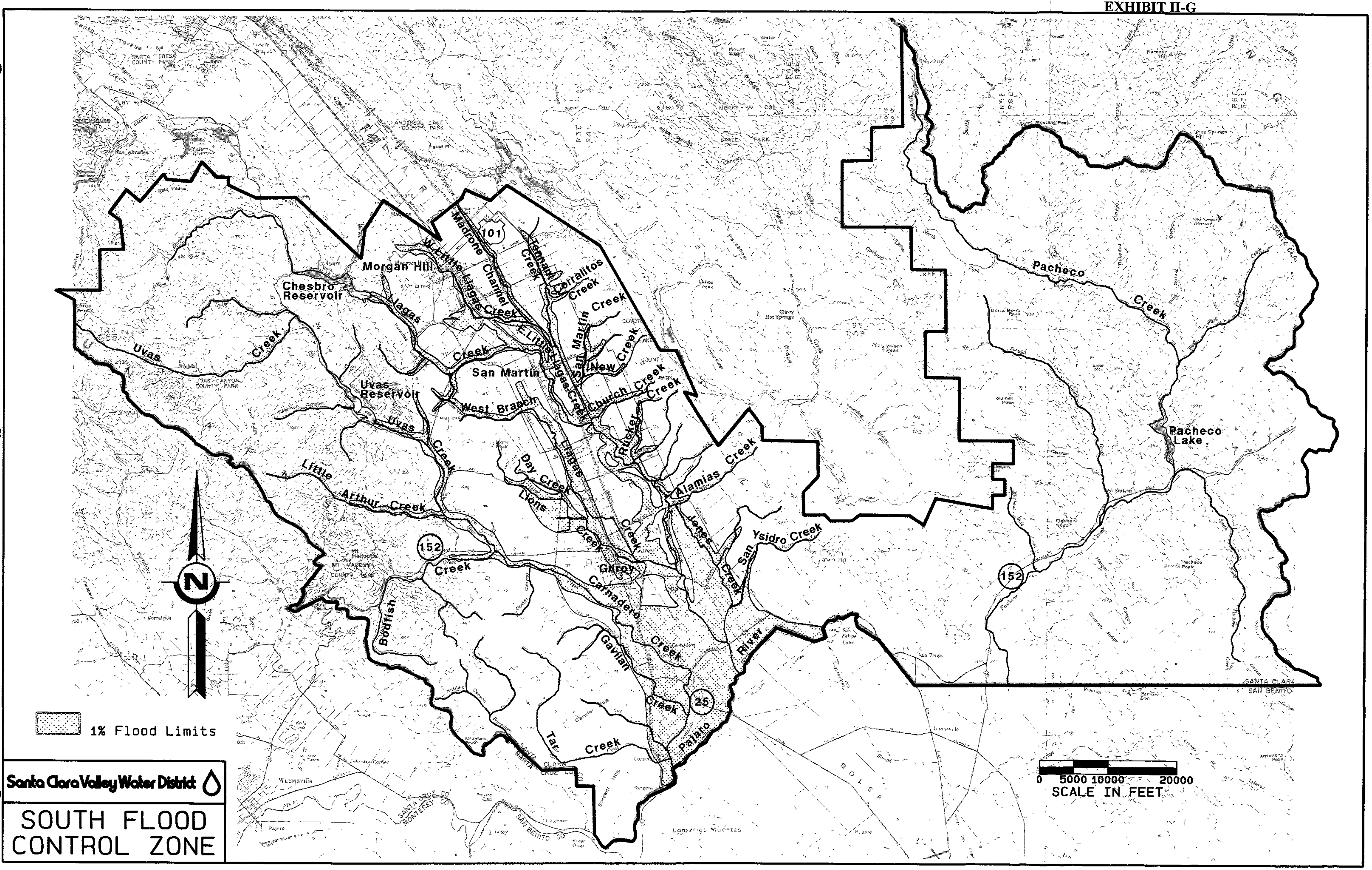
EXHIBIT II-F



Santa Clara Valley Water District

EAST FLOOD
CONTROL ZONE

EXHIBIT II-G



Santa Clara Valley Water District

SOUTH FLOOD CONTROL ZONE

FLOOD CONTROL ZONE ADVISORY COMMITTEES

PURPOSE

The Flood Control Zone Advisory Committees of the Santa Clara Valley Water District are composed of representatives of each city in the zone and a representative from the county where the unincorporated area exceeds 25 percent of the area of the zone. There is an Advisory Committee for each of the five zones.

In carrying out their duties, members of these Committees bring to the District the desires of the citizens of the communities they represent and aid in coordinating governmental projects. In addition, the Committee members carry information of District activities to their communities.

DUTIES

The Duties of the Committees are to:

- Review existing District policies regarding flood damage reduction activities and recommend changes in them to the Board of Directors. Where appropriate policies do not exist, the Committees recommend new policies to the Board.
- Review flood damage reduction projects and activities and make recommendations to the staff.
- Review flood damage reduction project priority schedules and recommend changes to the staff or recommend adoption by the Board of Directors.
- Review flood control zone budgets and recommend changes to the staff or recommend approval to the Board of Directors.
- Review and recommend alternative means of financing flood damage reduction activities.

Members of the various Flood Control Zone Advisory Committees and the meeting schedule for each Committee are shown on the following two tables.

Table III-1 shows the meeting schedules for each zone, Table III-2 summarizes the members/alternates for all of the committees.

TABLE III-1
Flood Control Zone Advisory Committee Schedule of Meetings

Central Zone:	Meeting Time:	1:30 p.m.
	Meeting Date:	Second Wednesday in February, May, September, and November or upon call of Chairperson.
	Meeting Place:	Rinconada Water Treatment Plant, 400 More Avenue, Los Gatos, CA 95030
East Zone:	Meeting Time:	1:30 p.m.
	Meeting Date:	Third Thursday in February, May, September, and November or upon call of Chairperson.
	Meeting Place:	5750 Almaden Expressway, San Jose, CA 95118
Northwest Zone:	Meeting Time:	10 a.m.
	Meeting Date:	Third Wednesday in February, May, September, and November or upon call of Chairperson.
	Meeting Place:	Sunnyvale Recreation Center, 550 East Remington Drive, Neighborhood Room, Sunnyvale, CA 94086
North Central Zone:	Meeting Time:	1:30 p.m.
	Meeting Date:	Second Wednesday in February, May, September, and November or upon call of Chairperson.
	Meeting Place:	Rinconada Water Treatment Plant, 400 More Avenue, Los Gatos, CA 95030
South Zone:	Meeting Time:	8:15 a.m.
	Meeting Date:	Second Thursday in February, May, September, and November or upon call of Chairperson.
	Meeting Place:	City Hall, Morgan Hill, California

TABLE III-2
Roster: Flood Control Zone Advisory Committees

Jurisdiction	Central Zone	North Central Zone	Northwest Zone	East Zone	South Zone
Campbell	M. Dean (E)* R. Kass (S)	M. Dean (E)* R. Kass (S)	N/A	N/A	N/A
Cupertino	N/A	D. Burnett (E)* B. Viskovich (S)	D. Burnett (E)* B. Viskovich (S)	N/A	N/A
Gilroy	N/A	N/A	N/A	N/A	S. Rowlison (E)* N. Allen (S)
Guadalupe-Coyote Resource Conservation District	N/A	N/A	N/A	L. Lucas (C)*	N/A
Los Altos	N/A	N/A	B. Bane (S)* L. Becker (E)	N/A	N/A
Los Altos Hills	N/A	N/A	E. Dauber (E)* J. Rasp (S)	N/A	N/A
Los Gatos	V. Wong (S)* T. Duarte (S)	V. Wong (S)* T. Duarte (S)	N/A	N/A	N/A
Milpitas	N/A	N/A	N/A	R. Livengood (E)* M. McNeely (S)	N/A
Monte Sereno	N. Hobbs (E)* D. Bamford (E)	N. Hobbs (E)* D. Bamford (E)	N/A	N/A	N/A
Morgan Hill	N/A	N/A	N/A	C. Cook (E)* J. Ashcraft (S)	C Cook (E)* J. Ashcraft (S)
Mountain View	N/A	N/A	T. Ko (S)* J Fuller (S)	N/A	N/A
Palo Alto	N/A	N/A	R Rosenbaum (E)* D. Mossar (E) J Teresi (S)	N/A	N/A
San Jose	T Basma (S)* J. Foley (S)	T. Basma (S)* J. Foley (S)	N/A	T. Basma (S)* J Foley (S)	T. Basma (S)* J. Foley (S)
San Martin	N/A	N/A	N/A	N/A	B Konle (C)*
Santa Clara	J. McLemore (E)* B. Augason (S)	J. McLemore (E)* B Augason (S)	N/A	N/A	N/A
Saratoga	N/A	S. Bogosian (E)* L. Perlin (S)	N/A	N/A	N/A
Sunnyvale	N/A	F. Fowler (E)* M. Rose (S) M. Dettle (S)	F. Fowler (E)* M. Rose (S) M. Dettle (S)	N/A	N/A
Santa Clara County	N/A	L. Brannon (C)* M. Charles (C)	J. Diaz (C)*	G. Cook (C)*	P. Van Dyke (C)* R. J. Martin (C)
At Large	D. Chamberlin (C)* R. Mortenson (C)* B. Bamburg (C)* A. Benkert (C)* J. Richardson (C)*	D. Chamberlin (C)* D. Tveter (C) L. Pfiffner (C)* D. Johnson (C) R. Mortenson (C)* S. Guerra (C)* R. Robinson (C)*	L. Janda (C)*	J. Guerra (C)* F. Cucuzza (C)* J. Mazloom (C)*	S. Malech (C)* M. O'Connell (C) R. Paredes (C)*

Legend:
*Representative (Others are Alternatives)
(E) Elected Official
(S) Staff
(C) Citizen
N/A Not Applicable

PROJECT DEVELOPMENT PROCESS

A flood damage reduction project goes through several phases in its development. The first phase is long range planning in which flood damage reduction needs are identified, assessed and given a priority ranking on a zone by zone basis. Then projects to meet these flood damage reduction needs are scheduled based on reconnaissance level planning information. The next phase is project implementation which includes detailed project planning that formulates various alternatives to meet each identified flood damage reduction need and selects projects to meet those needs. The detailed project planning is followed by design and construction of the project. Once the project is constructed, it enters the post construction phase which applies to all of the District facilities and includes maintenance, operations, administration and project evaluation activities.

LONG RANGE PLANNING PHASE

Waterways Management Model

As part of the long range planning process for flood damage reduction, an important step is to gather streamflow capacity and other related data in a comprehensive manner for all of the waterways in the various flood control zones. The District implements this step through the use of a computer model referred to as the Waterways Management Model.

The Waterways Management Model inventories each of the streams in each of the zones. The model identifies areas of flooding, depths of flooding, and estimates the amount of damage that could result from flooding for each stream.

One of the products that has resulted from this process is a map of the flood reduction facilities and flooding limits from the 1 percent flood for each zone. A comprehensive master plan that has a prioritized list of projects and a schedule to implement these projects for each zone has been prepared and is periodically updated as more information becomes available.

Priority Ranking System

To enable the District to objectively manage its program, a procedure is being used to establish priorities for the study and implementation of potential flood damage reduction and prevention projects. This procedure has been developed over the past several years in conjunction with the flood control advisory committees. The primary objective of the procedure is to produce a list of potential projects in the order of their importance for each flood control zone.

To establish the relative importance of all potential projects in a zone, each project is evaluated based on the following eight criteria:

Flood Control Priority Ranking Criteria	Relative Weights
1) Projects that will prevent the greatest potential flood damage	50%

2)	Projects that protect against flooding of developed areas before undeveloped areas.	12.6%
3)	Construction of reaches of inadequate channel between previously improved reaches of the same channel.	9.2%
4)	Projects that provide for rehabilitation of previously constructed facilities over new construction.	6.3%
5)	Projects that will protect from flooding areas of proposed development over areas where development is not proposed.	6.1%
6)	Projects that provide adequate flood carrying capacity in downstream reaches first.	5.9%
7)	Projects that improve capacity and stability of channels when such improvement will substantially reduce maintenance costs.	5.9%
8)	Projects that include multipurpose use of District facilities.	4.0%

These criteria are quantified for each project and the quantities weighted to reflect the relative importance of each criterion. The weighting of the first ranking criterion has been set up to ensure that those projects which will prevent the greatest damage will have the highest rankings. The other ranking criteria refine the location of each potential project on the list. These lists are used to identify the order in which the zone's problems will be addressed.

All rankings are nevertheless controlled by the legal and moral obligation upon the District not to assist one area by means which will worsen the condition of another.

Project Scheduling System

Long range scheduling of public works projects has many advantages and is used almost universally by public agencies. The advantages of such schedules are that they serve as tools for budgeting both manpower and dollar expenditures; as a guide for coordination with construction of other improvements by both public and private agencies; and to furnish an overview of District construction programs and project financing capabilities which are of value to the public, to the District Board of Directors, and to the various divisions within the District.

The District prepares a 10-year schedule for each zone based on the results of the Project Priority ranking system. The schedule includes the multi-year planning, design and construction phases of project development and provides the basis to evaluate the consequences of program changes. The income available in each year is the sum of the values estimated for the District's allocation of the County's tax revenue for flood control, benefit assessment revenue and several other minor sources, including reimbursements, interest and federal and State funds.

A financial analysis computer program is used to produce the 10-year schedule by testing and evaluating the financial impacts of different plans of action. The program starts with a beginning balance, adds total annual income and subtracts proposed project costs if funds are available.

Projects are not scheduled until adequate funds are available to complete a construction unit. If there are insufficient funds to complete a meaningful project unit, funds are set aside each year until the appropriate project unit can be funded. Surplus funds are invested and earn interest until used.

The scheduling program will not allow project design to begin until the project planning study is complete. It also helps to determine when the detailed planning for a project should begin. Projects are scheduled in order of their priority developed in the Project Priority ranking system.

The program will limit the number of planning studies and design projects under way in any given year to a specified amount. In this way the schedule can show the impacts of existing staff capability, expanded capability or hiring consultants to do some of the work. The program gives the total project cost and a balance to indicate how effectively funds are being used.

PROJECT IMPLEMENTATION PHASE

Project Planning Process

To foster development of flood damage reduction projects which are compatible with the needs of the community and which incorporate fully various technical, social, economic and environmental constraints, the District has developed an Integrated Project Planning Process. This process consists of a series of interrelated steps that culminate in a comprehensive report combining the results of the project planning study and environmental assessment. The report includes a discussion of a specific flooding problem, presents alternative solutions to resolve the problem, evaluates their impacts and mitigation measures, and recommends a solution.

The project planning process is referred to as an "integrated" process to reflect the fact that the studies undertaken involve not only technical and economic considerations but also the social and environmental considerations throughout the study effort. This is facilitated through the use of a Project Planning Team which generally consists of District staff from the Flood Control and the Maintenance Departments. Disciplines represented are Engineering, Land-Use Planning and Environmental Sciences. This team develops the project objectives and identifies constraints, defines practical conceptual alternatives and their impacts, formulates and carries out the public involvement program, evaluates the alternatives and develops a recommended project. The use of this team fosters the early incorporation of all the technical expertise disciplines involved.

Elements of a Flood Damage Reduction Program

The traditional approach to solving flooding problems has been "channel enlargement." Today, in its project planning process, the District uses a variety of methods to reduce the damages that can result from an identified flooding problem. Each of these methods is referred to as an "ELEMENT" of the flood damage reduction program. Table IV-1, presents an array of those elements. The solution to meeting a flood damage reduction need can rely on one or a combination of the elements shown. These elements can be divided into two major categories: corrective and preventive. These two categories each emphasize a different approach to reducing damages.

"Corrective measures" are used where an existing development is subject to a flood hazard. These measures are generally subdivided on the basis of how damage reduction is to be accomplished. For streamflow reduction, the objective is to reduce the magnitude of the peak flow at the site by such items as dams and retention ponds.

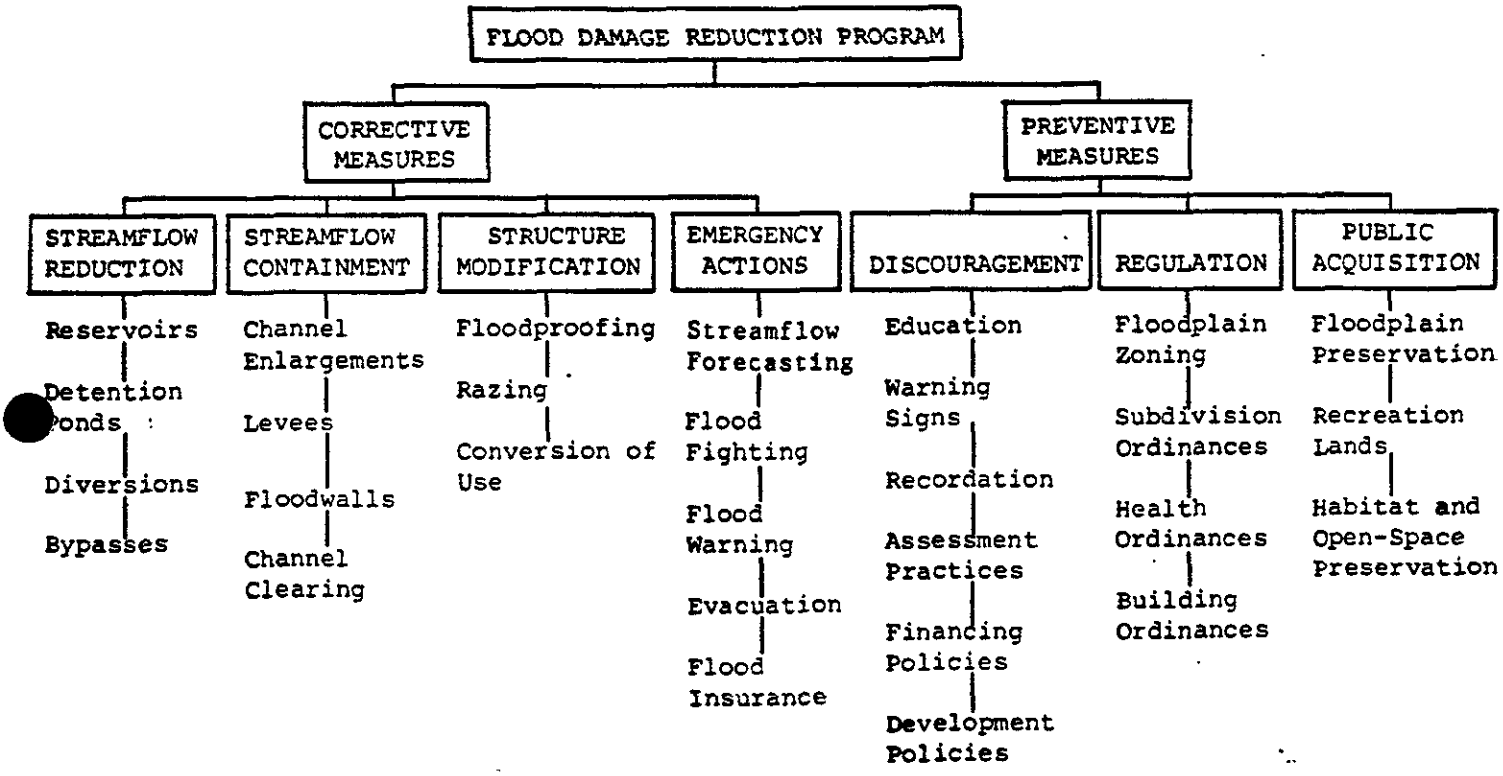
For streamflow control, structural measures such as levees or concrete lining would be used to contain the flow within prescribed limits near the stream. Through structure modification, the facilities in the flood hazard areas are modified, reconstructed or removed to reduce the damages resulting from floods. The final corrective measures category is the use of emergency actions prior to and during the flood to reduce the damages incurred.

"Preventive measures" are generally used where extensive development has not occurred in the floodplain, but where such a potential exists. These measures attempt to reduce flood damage by discouraging, regulating or preventing encroachment in the flood hazard area, or by public acquisition of the flood hazard area. These measures emphasize land-use planning as a means of reducing flood damages. The District has no legal authority to implement land-use control other than direct acquisition (purchase) of the floodplain area. The basic authority for land-use control is vested in city and county governments. Nonetheless, the Water District uses its expertise and influence to encourage the use of flood damage reduction techniques such as flood insurance, floodplain zoning ordinances, land division ordinances, education and flood forecasting programs.

Public Involvement

An important step in the planning process is the public involvement program. This program consists of several stages beginning with the initial contacts with affected public agencies and ending with Public Hearings before the District Board of Directors. Mail or telephone surveys may be taken and Citizen Advisory Committees formed; however, the primary input from the general public comes as a result of one or more neighborhood workshops. At these workshops, the District staff defines the problem, presents various conceptual alternatives and their impacts and discusses these options and others with the public in attendance. As a result of these meetings, the District develops an understanding of the needs, concerns and preferences of the public directly or indirectly impacted by the project. This information is used in the development of a solution to the problem which attempts to reflect the community consensus.

TABLE IV-1
Elements of a Flood Damage Reduction Program



The final step in the planning process results in action by the Board of Directors on the proposed project. This action usually follows a legally prescribed public hearing process. The public hearing, generally held in the community, is called to receive public comments on the proposed project as presented in the draft Planning Study (Engineer's Report). Following this hearing, the proposed project and the report are revised in response to legitimate concerns. Thereafter, at a regular public meeting, the Board of Directors considers the staff findings and public testimony and approves or disapproves the proposed project, and directs preparation of detailed plans and specifications. If approved, the project is planned and carried out in accordance with the report.

Engineer's Report and Environmental Impact Report (EIR)

The planning study is presented in an Engineer's Report and, if there are any significant environmental impacts, an EIR is prepared and often, for convenience, is combined with the Engineer's Report. Often the environmental impact assessment process points to the need for construction monitoring of archaeologically sensitive areas or other special requirements. To ensure that the final EIR recommendations are compatible with construction practices, the District's Construction Division is consulted during the EIR formulation. These documents give the designer enough information to start preparing detailed plans.

The Board may call an independent public hearing on an EIR if the magnitude of the work or its controversial nature should warrant it.

Design Process

The design process begins after the Engineer's Report is approved by the Board of Directors and staff is directed by the Board to proceed with preparation of final plans and specifications. A Design Division design team headed by a project manager/engineer is assigned to the project.

This final design process involves the detailed analysis and design of structures and other improvements in accordance with applicable codes and regulations. The process also involves detailed survey and alignment calculations in order to place on paper the physical dimensions of what is to be built (plans) and the standards by which these improvements are to be built (specifications). The process also involves the following specific responsibilities:

1. Determining specific land (fee title or easement) requirements for each project and requesting Engineering Services Division to prepare plats and descriptions and Real Estate Division to acquire the necessary rights of way to meet the project schedule.

2. Arranging for the relocation of conflicting utilities.

3. Arranging for detours needed during construction.

4. Assuring that all permits are obtained.

5. Scheduling all tasks, both within the District and involving other agency approvals, and monitoring the schedule to assure that deadlines are met.

6. Evaluating new products, materials, and design methods to determine applicability to projects.
7. Conducting meetings with other agencies and public representatives concerning the details of the design of the projects.
8. Preparing cost sharing agreements with other agencies or private parties where applicable.
9. Evaluating alternative design concepts where cost savings may be available.
10. Estimating the quantities of materials needed and the cost of the project.

When completed, the plans and specifications are submitted to the Board of Directors to obtain approval to advertise for construction proposals. After the project has been advertised, sealed proposals opened, and a contract for its construction awarded, the responsibility for the project is transferred to the Construction Division to provide the construction contract administration necessary during the course of the work.

Construction Process

After the contract for construction has been awarded by the Board of Directors, the Construction Division notifies residents along the route of construction (when applicable), arranges for the inspection forces, utility relocations, traffic control and other necessary features of the project.

After the notice to proceed is sent to the contractor, a preconstruction conference is held with representatives from the contractor, the design group, the inspection forces, City and County jurisdictions involved and all public utilities that may be affected by the work.

During construction, periodic reports of construction progress are prepared and progress pay estimates are made.

All change orders necessary during the course of construction are presented to the Board of Directors for approval. If problems arise in the field that are not covered by the construction plans and specifications, the Construction Division provides the necessary coordination between the design groups, the field inspection forces and the contractor to resolve the problem.

When the project has been completed, a final project inspection is conducted and final balancing contract change orders and notice of completion and acceptance of the work are prepared for Board approval. Record drawings or "As builts" that conform with the field inspector's notes and other information developed during the course of the construction work are prepared and filed. The project is then turned over to the Maintenance Department of the District.

POSTCONSTRUCTION PHASE

Maintenance

The flood control maintenance program of the District includes maintaining constructed facilities to a level that assures a facility will have a continuing functional life, providing the community with the service originally intended. The program also provides, within financial ability constraints, for the maintenance of all other channels, natural waterways, etc. to which the District has some degree of legal title.

District ownership of property is required before construction, repair, or maintenance work can be performed on it. The reason for this policy is quite simple. Public funds cannot legally be spent to improve private property except in emergency situations. District ownership may take the form of fee title or an easement.

Because of the varied conditions that exist along channels, the varied channel capacity requirements and community interests, maintenance activities may vary from area to area. For instance, some reaches of some creeks tend to accumulate silt deposits. The District responds by removing the silt deposits when they reduce channel capacity to an unacceptable level or standard. Other reaches have highly erosive soils. The District responds by correcting the erosion problems when the problem causes or could cause significant damage to adjacent property. The one activity that is consistent with all flood protection facilities is correction of the fire hazard resulting from weeds and brush. This condition exists throughout the District; however, the means of correcting the problem vary. Methods used include pre-emergent herbicide application (to prevent the fire hazard from occurring), mowing or discing (to eliminate the problem by mechanical means after it exists) and hand labor (to eliminate the problem after it exists, but where, because of the topography or close association of desirable vegetation, large mechanical equipment cannot be utilized). There is also the "do nothing" approach. This is used only in isolated areas where, even though a potential fire hazard exists, it is not feasible or reasonable to eliminate it.

Vegetative growth in the channels is also a maintenance problem. In some areas this growth severely reduces the channel capacity to carry flood flows. Where there is a significant vegetative growth, it may be removed completely or selectively, depending again upon community interest, the environmental effects, the feasibility of the operation and the effect the growth has on the channel flood flow capacity.

There are many other maintenance problems to which the District must respond, such as the repairing of fences, posting regulatory signs, constructing gates or barriers to eliminate trespassing problems, removing fallen trees, cleaning up garbage, etc. The District strives to respond to all problems identified by staff or brought to its attention by citizens, thereby providing a service to the community that meets the major objective of providing the maximum flood protection possible. As stated above, the methods of providing this service may vary extensively depending upon the facility, financial constraints, and the needs of the community.

During periods of potential flood emergency conditions, maintenance program functions change to flood fighting operations. Maintenance personnel investigate reported flooding incidents and dispatch field crews to those areas if something can be done to reduce the flooding. The work that can be done during a flood emergency is generally limited to removal of trash and debris from trashracks and culvert entrances, removal of downed trees from channels and placement of sandbags in areas where the channel banks are being overtopped by floodwaters along short reaches of the facility. On occasion, during major storm events, the District has mobilized both District and contract personnel and equipment to import materials to repair a levee that has been breached. This occurs very infrequently because, generally, access to the site is not possible and repair work cannot be undertaken until the floodwaters have receded.

During periods of major storm activity, the District's corporation yard remains open to allow people to pick up sandbags and sand for their individual flood fighting efforts. The quantity is limited to 25 sandbags per individual and the individual must fill the bags. Sand is provided by the District at the corporation yard. Through a cooperative effort with other public agencies, similar sandbag pickup stations are established throughout Santa Clara County. The District's role is to provide sandbags, without cost, to the other public agencies for their use and for distribution at sites of their choosing.

Another factor that plays an important part in the maintenance program is interagency cooperation. This cooperation occurs whenever there is a desire to use a flood protection facility for multiple purposes. The maintenance responsibilities for the multi use facilities are divided according to each agency's involvement. The District assumes the maintenance responsibility for the flood protection aspects of the facility only.

Another form of interagency cooperation in the maintenance program is the District's compliance with regulations of other agencies. For example, whenever any work is to be performed in the tidal area of the North County, the proposed work is first reviewed by the various regulatory agencies having jurisdiction such as the Corps of Engineers, the San Francisco Bay Conservation and Development Commission (BCDC), State Department of Fish and Game, and others. The necessary permits are obtained from these agencies prior to any work being done. The District is granted blanket permits from the State Department of Fish and Game, BCDC and the Corps of Engineers, in conformance with their respective regulations, to perform routine and minor maintenance work without prior detailed review.

Operations

Operations activities associated with flood damage reduction projects are primarily concerned with the enforcement of District ordinances, the principle one being Ordinance 83-2 which is concerned with reviewing public and private activities that may affect District facilities. This ordinance is discussed in detail in Section V and reprinted in Section VI.

Operations activities also include management of District properties that have been purchased in lieu of constructing flood control works or that have been purchased in advance of construction of a flood control project.

Dams and Reservoirs

The District owns and operates ten major dams and reservoirs in Santa Clara County (see Appendix A for statistics on each of the District's dams and reservoirs). These facilities were built and funded primarily for the purpose of water conservation and therefore were not designed for flood control operations. The reservoirs on the major stream channels in the County do, however, provide incidental flow reduction, even when they are full. Because the reservoirs are used primarily for water supply, their maintenance and operations are funded from water utility enterprise rather than flood control funds. During periods of heavy storm runoff the reservoir levels are continuously monitored in order to anticipate spillway discharge times and flow rates.

Administration

Several activities are necessary for the orderly conduct of the flood damage reduction objectives which benefit several projects and are not easily identifiable with a specific project. Such items include insurance, debt service, annual preparation of the benefit assessment roll and other miscellaneous projects. Also included in this program are flood emergency activities.

Flood Emergency Activities are outlined in the District's Emergency Operations Manual. This document sets forth a number of activities to be carried out in response to conditions at a particular time. The District maintains a flood emergency alert status from October 1 to May 1 of each year. During this period the District monitors weather, streamflows and reservoir conditions and ensures that personnel and equipment are in a ready condition. A preemergency status occurs when rainfall and runoff conditions require 24 hour surveillance. This includes staffing the Emergency Operations Center with key personnel to monitor weather, streamflows and reservoir storage conditions. Other personnel who may be involved in an emergency flood operation are placed on standby. When flooding starts to occur and threatens to increase, a condition of emergency is declared. The general activities that take place during the emergency condition are flood fighting, monitoring flooding conditions—including streamflow forecasting, responding to requests from the general public and hydrologic data collection. (See Appendix C for a description of the District's Streamflow Forecasting System.)

Monitoring Effectiveness of Work

To assure that a project was designed correctly and that it is maintained correctly and to gain valuable information that can be used in planning and design of future projects, it is necessary to monitor the projects. Projects are monitored after construction as follows:

- Projects are reviewed periodically by the design engineers to see that they are performing as expected. The first three years after construction, projects are inspected annually. Inspection thereafter is on a less frequent basis. Inspection includes a visual evaluation of the condition of structures, channels and slope protection. The channel is photographed during each inspection to record the physical conditions of the project.

- Projects are reviewed by an environmental specialist to see that planned mitigation measures have accomplished their intended purposes. Reestablishment of a riparian habitat to replace habitat that was removed by the project is of prime importance. This is evaluated to see that reestablishment is occurring as anticipated. Annual evaluation of predicted environmental impacts is also made and compared to the environmental impact report in order to determine the accuracy of the report in identifying all impacts.

- The Maintenance Division also inspects each project on a periodic basis to determine the effectiveness of the District maintenance program.

ROLE OF DISTRICT IN THE LAND DEVELOPMENT REVIEW PROCESS

GENERAL

The land development review process is a very important preventative element of the flood damage reduction program. Besides providing sound advice relative to the flood and erosion hazards to the land-use decision makers and to the property owners, it helps to prevent improper encroachment of structures into the critical areas adjacent to watercourses. If such encroachments were not prevented, they could limit future flood and erosion reduction project options to the less desirable structural alternatives.

The Cities and County have authority, under State law, to approve or deny land development proposals and to establish reasonable conditions which a developer must meet if the project is to be approved and built. The District has no legal authority to approve or deny such applications except for civil action if health and safety are in jeopardy. It does, however, under Resolution 83-2, review all land development applications referred to it by the Cities and the County and makes appropriate recommendations for conditions of development. Such recommendations include a request for appropriate area dedication and reservation to provide adequate room to maintain the watercourse and to construct any project needed to reduce flooding and erosion.

In this review process, the District also advises the Cities, the County, and the land developer as to the severity of any flood and erosion hazard which may affect the site and proposes means of protection which can be implemented by the developer. Upon request, the District provides a flood hazard report relative to the proposed development to the State of California Division of Real Estate, the Federal Housing Administration, the Veterans Administration, and others who may be involved in financing the development.

The next two subsections describe the District dedication policy and Ordinance 83-2 in more detail.

DEDICATION POLICY

Where a change in land use would add to the need for and benefit from a public flood protection project, it is equitable for the District to secure some reasonable measure of contribution to the public cost of such a project. Generally, this contribution is in the form of a dedication of the land or a granting of rights to use the land, necessary to contain a basic flood protection project. This will protect future residents or users of the land and will allow mitigation of adverse effects on others from the change in land use. This dedication is made either before or at the time the affected land is chosen to be developed by the owner.

District staff applies uniform countywide guidelines to determine the most equitable dedication for each developing parcel affected by a creek. These guidelines have been adopted by the Board of Supervisors for use in unincorporated areas and are being considered for adoption by the cities.

Generally, the guidelines (referred to as the District's **Dedication Policy**) provide that plans to develop private property go first to the local building or planning official who then routes them to the District and other appropriate agencies for review. When required, the District will request that, as a condition of land development approval, appropriate setbacks from any planned flood control project be provided and that either an easement or fee title be conveyed to the District over the creek area to permit proper maintenance by the District. When possible, the District attempts to avoid construction of excavated and concrete-lined channels. It prefers instead to provide flood control by modifying natural floodplains with minor levees where needed, thereby leaving existing vegetation undisturbed. In such cases, the District will request dedication of right of way for a minimal excavated earth channel and will agree to purchase the balance of a larger, more desirable right of way at a fair market price. This concept of cost sharing between adjacent property owners and zonewide residents results from recognizing the areawide benefits of the wider more natural waterways.

DISTRICT ORDINANCE 83-2

Ordinance 83-2 sets forth the procedure for the District to review land development proposals, to issue permits for activities in or near creeks and to request dedications of right of way when a change in land use occurs.

Actually, the power to regulate land development—that is, to approve or deny a land development application and to impose conditions—is vested by the State in the Cities and the County only, not special districts. Therefore, the District relies upon the excellent cooperation of the Cities and County in this area. A copy of Ordinance 83-2 is presented in Section VI, Flood Control Policies.

FLOOD CONTROL POLICIES

This section presents discussions of the District Flood Damage Reduction Policies and/or reprints the actual policy. The following list summarizes the policy items that are presented in this section:

Ordinance or Resolution No.	Policy Description
Ord. 83-2 (Amendment 85-2)	An Ordinance defining limits of Flood Control responsibility; providing for maintenance of watercourses, for joint use of projects, and for dedications; prohibiting pollution of District water supplies and injury to District projects, as defined, and encroachment upon or interference with watercourses except by permit; providing penalties for violation hereof; and repealing Ordinance 74-1.
(NONE)	Local Drainage Policy—description of policy as stated in Ordinance 83-2.
Res. 79-76	Policy regarding revegetation and landscaping of District facilities.
(NONE)	Right of Way Acquisition Policy
Res. 74-38	Policy governing joint public use of District facilities.
Res. 76-39	Joint Guidelines of the City of San Jose and the Santa Clara Valley Water District for the planning, design, and construction of bridges.

EXHIBIT VI-A

ORDINANCE NO. 83 - 2

AN ORDINANCE OF SANTA CLARA VALLEY WATER DISTRICT DEFINING LIMITS OF FLOOD CONTROL RESPONSIBILITY; PROVIDING FOR MAINTENANCE OF WATERCOURSES; FOR JOINT USE OF PROJECTS, AND FOR DEDICATIONS; PROHIBITING POLLUTION OF DISTRICT WATER SUPPLIES AND INJURY TO DISTRICT PROJECTS, AS DEFINED, AND ENCROACHMENT UPON OR INTERFERENCE WITH WATERCOURSES EXCEPT BY PERMIT; PROVIDING PENALTIES FOR VIOLATION HEREOF; AND REPEALING ORDINANCE 74-1

The Board of Directors of Santa Clara Valley Water District do ordain as follows:

SECTION 1

INTENT

It is the intent of this Ordinance to secure the health, safety and welfare of the people of the District by prudent floodplain management, by protecting the quality of District water supplies, and by securing maintenance of watercourses and prohibiting injury to District property and projects and harmful amendment of watercourses.

It is further the intent of this Ordinance to provide a definition of the general limits of watercourses on which the District may request rights of way for flood control purposes and construction of flood control facilities.

It is further the intent of this Ordinance to insure that the repeal of Ordinance 74-1, accomplished hereby, shall not affect permits heretofore given and rights of every nature heretofore established pursuant to said Ordinance 74-1.

SECTION 2

DEFINITIONS

2.1 "Bank or Banks of a Watercourse" means the sides of a watercourse the top of which shall be the topographic line roughly parallel to stream center line where the side slopes intersect the plane of ground traversed by the watercourse. Where banks do not distinguishably end, the surrounding country being extensions of the banks, the top of such banks shall be as determined by the District.

2.2 "Board" means the Board of Directors of the Santa Clara Valley Water District.

2.3 "Design Flood" means the selected flood against which protection is provided, or eventually will be provided, by means of flood protective or control works.

2.4 "Designated Floodway" means the channel of a stream and that portion of the adjoining floodplain required to reasonably provide for passage of the design flood.

2.5 "District" means Santa Clara Valley Water District.

An Ordinance of Santa Clara Valley Water District Defining Limits Of Flood Control Responsibility; Providing For Maintenance Of Watercourses; For Joint Use Of Project, And For Dedications; Prohibiting Pollution Of District Water Supplies And Injury To District Projects, As Defined, And Encroachment Upon Or Interference With Watercourses Except By Permit; Providing Penalties For Violation Hereof; And Repealing Ordinance 74-1

2.6 "District Project" means any facility, structure or improvement of the District including, without limitation, lands, facilities, structures or improvements and appurtenances thereto owned or controlled by the District for water conservation, water utility, flood control or any lawful District purpose.

2.7 "Levee" means an elongated embankment constructed where required to contain flooding.

2.8 "Pollution" means impairment of water quality to a degree which adversely and unreasonably affects a beneficial use of the water.

2.9 "Structure" means anything made or constructed and having its foundation or support upon or within the ground.

2.10 "Watercourse" means an elongated channel or depression, whether natural or man-made, in which water does or may flow and may include the overflow area, if any, of such channel or depression. For the purposes of this Ordinance "watercourse" includes such channels or depressions, although the same may be by reason of size of area drained not deemed to be a flood control facility.

SECTION 3

MAINTENANCE BY OWNER

Every owner of a watercourse whether a person, firm, corporation, or governmental agency, or such owner's lessee or tenant, shall keep and maintain the same in a condition which will not contribute to pollution as prohibited by Section 6.1 hereof and which will not unreasonably change or retard the flow of the water; and every owner of a structure within or directly affecting a watercourse shall maintain the safe condition and function of the same.

SECTION 4

DISCHARGE OF DRAINAGE

The County of Santa Clara, any municipality and any agency or person within the District shall have the right to discharge drainage water of non-polluting quality directly into watercourses, except water supply canals and percolation facilities, of the District subject only to the approval procedure set forth in this Ordinance.

An Ordinance of Santa Clara Valley Water District Defining Limits Of Flood Control Responsibility; Providing For Maintenance Of Watercourses; For Joint Use Of Project, And For Dedications; Prohibiting Pollution Of District Water Supplies And Injury To District Projects, As Defined, And Encroachment Upon Or Interference With Watercourses Except By Permit; Providing Penalties For Violation Hereof; And Repealing Ordinance 74-1

SECTION 5

FLOOD CONTROL RESPONSIBLITY

5.1 The responsibility of this District for the control of flood and storm water is an obligation to make efficient use of its funds in the areas of study, planning and acquisition and to act lawfully in designing, constructing and maintaining such works as the Board shall approve. The responsibility of the District does not and cannot extend to an affirmative obligation to take specific measures of any nature not mandated by governing legislation or judicial order. This Ordinance may not be deemed an imposition of a duty upon the District other than as specified above and no assertion of public liability shall be based thereon. Nothing in this Ordinance shall be deemed to be or construed as a warranty or assurance that flooding and flood damage will not or cannot occur anywhere in the District. However, the District will provide flood control service in an emergency to the extent of its resources and ability. The District accepts an obligation to design, construct and maintain its works in such manner as to avoid or minimize harmful disturbance of the natural environment.

5.2 Construction and maintenance, or acceptance and maintenance, of flood control works and control of flood and storm waters by the District shall be subject to the following:

A. The District will so act in a reach or portion of a watercourse only if it has sufficient legal title or right of way therein.

B. Artificial channels of any kind, regardless of the size of tributary watershed, are excluded from District responsibility unless the same are constructed by the District or are approved and adopted by the Board.

C. A reach or portion of a natural watercourse will not be deemed within District flood control jurisdiction unless the tributary watershed area upstream of such reach or portion is in excess of 320 acres (one-half square mile); provided, that such area may be either greater or less than 320 acres pursuant to agreement with the city or county having jurisdiction.

5.3 A watercourse or reach or portion thereof over which the District is not deemed to have flood control jurisdiction by reason of the exclusions specified in Subparagraphs B and C of Section 5.2 above is deemed a local drainage facility.

5.4 Flood control facilities serving a watershed area of 320 acres (one-half square mile or more) shall have a design capacity to safely convey the one percent flood ("100-year flood") plus freeboard. The standard, however, may be lowered to be consistent with land use designations of city or county land use master plans. Freeboard design criteria shall be established by the District based upon accepted engineering practices.

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An Ordinance of Santa Clara Valley Water District Defining Limits Of Flood Control Responsibility; Providing For Maintenance Of Watercourses; For Joint Use Of Project, And For Dedications; Prohibiting Pollution Of District Water Supplies And Injury To District Projects, As Defined, And Encroachment Upon Or Interference With Watercourses Except By Permit; Providing Penalties For Violation Hereof; And Repealing Ordinance 74-1

5.5 Storm water drainage facilities serving a watershed area less than 320 acres (one-half square mile) and qualifying under agreement per paragraph 5.2c shall have a design capacity to convey the ten percent flood ("10-year flood") plus freeboard. Freeboard design criteria shall be established by the District based upon accepted engineering practices. The storm water drainage facilities referred to in this section are the major collectors and are not deemed to include storm sewers used to drain urban developed sites. The design of storm sewers rests with the local agency having jurisdiction of the urban development served. In drainage areas less than 320 acres, where urban development exists or may occur, the drainage facilities should be designed to provide for the conveyance or detention of the flood flows in excess of the ten percent flood up to the one percent flood in the streets or open space areas so that development is not subject to flooding by such excess flood flows. Otherwise, the structures must be flood-proofed, as prescribed by Federal Emergency Management Agency regulations, or the storm water drainage facility must be designed as provided in Section 5.4 above.

SECTION 6

PROHIBITIONS

6.1 The pollution of the water supplies of the District, whether in surface streams, reservoirs or conduits of any kind, or of groundwater, by any direct or indirect means whatever, including the deposit of polluting matter of any kind upon the banks of a watercourse, lake or reservoir where the same may reach or affect such water supplies, and including the discharge of polluting storm waters or sanitary sewage, is prohibited.

6.2 Without having first secured a permit pursuant to Section 7 hereof, or other written approval from the District, it shall be unlawful after the effective date of this Ordinance for any person, firm, corporation, the County of Santa Clara, the Government of the United States and agencies thereof, the Government of the State of California and agencies thereof, or any municipal corporation or district to do or cause to be done any of the following:

A. Construct or place any structure or perform any grading within a designated floodway between the banks of a watercourse, or within 50 feet of the top of such banks.

B. Construct, place or maintain any structure or perform any grading upon a levee or on a District project.

C. Excavate within a designated floodway, upon a levee, or upon or between the banks of a watercourse, or District project.

D. Deposit material of any kind within a designated floodway, upon a levee, or District project, or upon or within the banks of a watercourse.

E. Construct or place any outlet for discharging drainage waters within a designated floodway, upon or within the banks of a watercourse, or District project.

F. Plant any form of flora upon or within the banks of a watercourse or a District project.

G. Trespass in any manner whatsoever including the driving of vehicles on any property in which the District owns a fee simple interest or on which the District owns an exclusive easement for flood control, drainage or water conservation or distribution purposes, except such areas as have been opened to and developed for public recreational or other use.

6.3 Permits shall not be withheld upon unreasonable or insubstantial grounds.

SECTION 7

PERMIT PROCEDURE

7.1 Any person, firm, corporation or public agency, except those filing maps pursuant to the State Subdivision Map Act or local ordinances adopted pursuant thereto, desiring to do any of the acts for which a permit is required pursuant to this Ordinance shall make application for such permit to the District. Said applications shall contain such information as the District shall reasonably require.

7.2 Any public agency, or any person, firm or corporation filing a map pursuant to the State Subdivision Map Act or local ordinance adopted pursuant thereto, desiring to do any of the acts for which a permit is required pursuant to this ordinance shall, in lieu of the application procedure set forth above, submit engineered improvement plans to the District.

7.3 Upon receipt of such application for permit or engineered improvement plans or additional information as herein set forth, the District shall make such investigations as are necessary to determine, among other things, whether or not the proposed work or activities intended will impede, restrict, retard, pollute, change the direction of the flow of water, catch or collect debris carried by such water; is located where natural flow of the storm and flood waters will damage or carry any structure or any part thereof downstream; or will damage, weaken, erode, or reduce the effectiveness of the banks to withhold storm and flood waters, to resist erosion and siltation and entry of pollutants and contaminants, or interfere with maintenance responsibility or with structures placed or erected for flood control, water conservation or distribution. In order to make said investigation, the District may return said application or improvement plans to the applicant for additional information as may be required to complete the investigation. After investigation the District shall approve conditionally, or disapprove the application or improvement plans on the basis of such investigations. If a permit is granted, it shall state the conditions subject to which it is granted.

7.4 Within fifteen (15) days of District receipt of such application for permit or engineered improvement plans or additional information, the District shall respond, acknowledging the same and advising the applicant of any reason beyond the District's control why action thereon cannot be taken within thirty (30) days of said District receipt. Where no such notification of anticipated delay and the reason therefor is given by the District, the District shall act upon every application for permit, or engineered improvement plans or additional information within thirty (30) days of its receipt.

7.5 In the event an applicant is aggrieved by the action of the District, or by reason of the requirements of this Ordinance, the applicant may within fifteen (15) days from date of decision of the District, make an appeal in writing to the Board. The Clerk of said Board shall set a time for hearing on such appeal within three (3) weeks from the date of receipt of said appeal, and shall mail or deliver notification to the appellant of said date at least two (2) weeks prior to the date so set. The appellant may waive such notification and seek a hearing at the next meeting of the Board. At the hearing of such appeal, it will be incumbent upon the appellant to show to the satisfaction of the Board that the work or activities so proposed will not violate Section 7.3 of this Ordinance.

7.6 The permit, when issued, shall constitute authority for the applicant to proceed according to the conditions of the permit, except as to that work for which other permits are required by the County of Santa Clara or the city in which the property on which the work is to be performed is located, and as to that work for which other permits are required, such permits must be obtained from that agency and the permit granted pursuant to the terms of this Ordinance shall not be effective until such other permits have been obtained. It shall be the responsibility of applicant to determine the need for such other permits.

All work for which a permit is required shall be subject to administrative regulation, such as notice by permittee of time of beginning of work, as may be necessary to insure complete inspection during all phases or stages of such work.

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If the work is not done in accordance with the terms of the permit, and the instructions of the Inspector, then the permittee shall be considered to have violated the terms of this Ordinance. Upon completion of the work in compliance with the permit the District shall execute a Notice of Completion and, upon the request of the applicant, shall supply applicant with a copy thereof.

7.7 The Board may by resolution establish a schedule of fees payable upon application for permit hereunder.

7.8 This Ordinance is enforceable and shall be enforced by every civil and penal means available to the District against every direct violation of the provisions thereof and any failure to satisfy the terms of a permit issued thereunder. As an additional remedy to such violations and if essential to the health, welfare, or safety of the general public, the Board may order the work to be done, excavation replaced, material removed, or may order any construction or structures placed contrary to the terms of this Ordinance removed by the District, which work must be paid for by the violator.

7.9 Anything hereinabove stated notwithstanding, a permit under this Ordinance IS NOT REQUIRED unless the subject reach or portion of a watercourse is one having a tributary watershed in excess of 320 acres or is one which is brought under permit procedures pursuant to agreement with the city or county having jurisdiction pursuant to 5.2c.

SECTION 8

JOINT USE

The use of District projects jointly with a public agency, subject to conditions established by resolution of the Board, is favored wherever such joint use is possible and conformable to the Distict's public duty.

SECTION 9

REQUEST FOR DEDICATIONS AND CONSTRUCTION

In order to permit the provision of flood control services by the District, the District will request, wherever equitable and appropriate, that the city or the county having jurisdiction secure flood control dedications to the District from landowners seeking a change of land use. Where equitable and appropriate, the District may also request that the city or the county having jurisdiction secure from such landowners construction of flood control measures as determined by the District. Such requests shall be pursuant to and in accordance with the master plans, ordinances, resolutions, procedures and conditions established by such city or county.

An Ordinance of Santa Clara Valley Water District Defining Limits Of Flood Control Responsibility; Providing For Maintenance Of Watercourses; For Joint Use Of Project, And For Dedications; Prohibiting Pollution Of District Water Supplies And Injury To District Projects, As Defined, And Encroachment Upon Or Interference With Watercourses Except By Permit; Providing Penalties For Violation Hereof; And Repealing Ordinance 74-1

SECTION 10

VALIDITY

Should any Section or provision of this Ordinance be found to be unconstitutional or invalid, such decision shall not affect the validity of the Ordinance as a whole or any part thereof, other than the part decided to be unconstitutional or invalid.

SECTION 11

ORDINANCE 74-1 REPEALED

Ordinance 74-1 of this District is hereby repealed; provided that permits heretofore given and rights of every nature heretofore acquired under said Ordinance 74-1 shall remain unaffected.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on July 26, 1983 by the following vote:

AYES: Directors ~~J. DONOHUE~~, P. T. FERRARO, A. H. FISHER, ~~R. W. GROSS~~, ~~J. J. LENIHAN~~, J. PANDIT, S. SANCHEZ

NOES: Directors NONE

ABSENT: Directors J. DONOHUE R. W. GROSS J. J. LENIHAN

SANTA CLARA VALLEY WATER DISTRICT

By: Sig Sanchez
Chairman of the Board of Directors

ATTEST: SUSAN A. EKSTRAND

Susan A. Ekstrand
Clerk of said Board of Directors

I hereby certify that the foregoing is a full, true and correct copy of the original thereof on file in my office.

DATED: 7/28/83

Susan A. Ekstrand
SUSAN A. EKSTRAND
Clerk, Board of Directors
Santa Clara Valley
Water District

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ORDINANCE NO. 85- 2

AMENDING ORDINANCE NO. 83-2 TO ADD THAT VIOLATION OF ITS PROVISIONS IS A MISDEMEANOR

The Board of Directors of Santa Clara Valley Water District does ordain that Ordinance No. 83-2 shall be and is hereby amended as follows:

SECTION 1

Subsection 7.8 of Section 7 PERMIT PROCEDURE is amended to read:

7.8 Violation of the provisions of this Ordinance and any failure to satisfy the terms of a permit issued thereunder is a misdemeanor. The violation shall be punishable by a fine not exceeding five hundred dollars ($500), or imprisonment in the County Jail not to exceed thirty (30) days, or both that fine and that imprisonment. Any violation or threatened violation may also be enjoined by civil action. As an additional remedy to such violations and if essential to the health, welfare, or safety of the general public, the Board may order the work to be done, excavation replaced, material removed, or may order any construction or structures placed contrary to the terms of this Ordinance removed by the District, which work must be paid for by the violator.

SECTION 2

The balance of said Ordinance shall remain in full force and effect.

SECTION 3

This Ordinance and Ordinance No. 83-2, as amended hereby, shall be published once in full in the ADVOCATE JOURNAL, a newspaper of general circulation published and circulated in the District within ten (10) days after adoption; the publication of Ordinance No. 83-2 shall show the amendment thereof by cross-out and underlining.

SECTION 4

The amendment of Ordinance No. 83-2 shall be effective thirty (30) days after adoption.

Amending Ordinance No. 83-2 to Add That Violation of its Provisions is a Misdemeanor.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on October 22, 1985, by the following vote:

AYES: Directors ~~J. DONOHUE,~~ P. T. FERRARO, A. H. FISHER, R. W. GROSS, J. J. LENIHAN, J. PANDIT, S. SANCHEZ

NOES: Directors None

ABSENT: Directors J.Donohue

SANTA CLARA VALLEY WATER DISTRICT

By: Audrey H. Fisher
Vice Chairman of the Board of Directors

ATTEST: SUSAN A. PINO

Clerk of the Board of Directors

AGENDA MEMORANDUM

AGENDA DATE 10/22/85 ITEM NO. 3 UNIT General Counsel

ZONE _____ PROJECT NO. _____ NAME _____

SUBJECT: Amendment of Ordinance No. 83-2

EXPLANATION:

An existing Ordinance of the District (No. 83-2) undertakes to regulate watercourses in the interest of flood management and avoidance of contamination.

Recently effective amendments to the District's Governing Act provide among other things that violation of a District Ordinance shall be a misdemeanor.

It is necessary to amend Ordinance No. 83-2 for this purpose. The amendment is shown by cross-out and underlining.

Local Drainage Policy

The Santa Clara Valley Water District accepts jurisdiction over all natural watercourses in the County where the upstream tributary watershed area is 320 acres (one half square mile) or more. Artificial channels are excluded from District responsibility unless they have been constructed by the District or accepted by the Board of Directors as District responsibility. Similarly, watercourses where there is less than 320 acres of tributary watershed area may be accepted by the District by agreement with the City or County having jurisdiction.

Those watercourses which fall outside the criteria for District responsibility are called local drainage facilities and are the responsibility of the local City or County.

District Ordinance 83-2 sets forth these local drainage guidelines.

EXHIBIT VI-B
Resolution No. 79-76

RESOLUTION NO. 79-76

DECLARING POLICY OF SANTA CLARA VALLEY WATER DISTRICT REGARDING REVEGETATION AND LANDSCAPING OF DISTRICT FACILITIES

RESOLVED by the Board of Directors of Santa Clara Valley Water District that, in order to mitigate significant adverse environmental effects of District projects wherever physically and financially feasible, and deeming it to be in the public interest to preserve the aesthetic quality of projects by programs and measures of revegetation and landscaping, said Board shall and does hereby adopt the following revegetation and landscaping policy:

1. In the planning and design of new District projects, a concerted effort shall be made to save and integrate with the project all existing significant vegetation and wildlife habitat.

2. The extent of revegetation work, if any, required to mitigate significant adverse impacts of the project will be consistent with the effects of the project on the environment with emphasis given to reestablishment of pre-project riparian habitat, taking into consideration the project's beneficial effects on the environment, the open space preserved, the amount of natural revegetation that can be expected to occur in a reasonable period of time, and the availability of funds for installation and maintenance.

3. Revegetation projects shall be developed in cooperation with the cities and County where possible and, in such cases, every effort should be made to share the costs of design, installation and maintenance with the local jurisdiction.

4. Revegetation project plans will be developed in general conformance with the concepts and Project Design Guidelines presented in the report on Landscape Program Review and Future Revegetation Program Recommendations, dated May, 1979, or as amended from time to time by the Board of Directors.

5. Where the removal of a tree or significant riparian vegetation is required for essential maintenance, a reasonably mitigating replacement shall be made in the same area or neighborhood where feasible. A determination of feasibility will depend in each case on availability of appropriate site and of funding.

6. In general, any plantings installed at District projects shall be low maintenance type, adapted to local climatic and soil conditions and suitable for use under the situation imposed by the District project. In order to conserve water and energy, plant materials used should not require irrigation after the establishment period.

7. Where appropriate on-site revegetation of a District project is not feasible, other mitigating activities including but not limited to purchase of land supporting habitat of similar ecological value will be considered by the Board as an alternative mitigation measure.

Resolution Declaring Policy of Santa Clara Valley Water District Regarding Revegetation and Landscaping of District Facilities

8. Landscaping which is not for the purpose of mitigating adverse environmental effects but is proposed as an enhancement of pre-project conditions will not be a part of project design unless directed by the Board. Where such enhancement is proposed by other agencies, groups or individuals, the work and its maintenance will be at the cost of such proposing agency, group or individual.

9. Resolution No. 74-40 on the same subject is superseded hereby.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District this 18th day of September , 1979, by the following vote:

AYES: Directors M. E. DULLEA, ~~P. T. FERRARO~~, J. J. LENIHAN, ~~L. PERALTA~~ A. T. PFEIFFER, C. RUSH, ~~R. T. SAPP~~

NOES: Directors P. T. FERRARO R. T. SAPP L. PERALTA

ABSENT: Directors NONE

SANTA CLARA VALLEY WATER DISTRICT

SEP 18 1979

By: ____________________
Chairman of the Board of Directors

ATTEST: SUSAN A. EKSTRAND

Susan A. Ekstrand
Clerk of the Board of Directors

9/18/79

Comparison Between Resolution 74-40 and Proposed New Resolution

	Resolution 74-40		Proposed New Resolution
1.	To minimize impact of District projects on environment. To enhance the aesthetic values of community.	1.	To mitigate significant adverse environmental effects of District projects. To preserve the aesthetic quality of projects.
2.	Completed District projects to be landscaped where District has fee title ownership subject to availability of funds. (Item 1)	2.	Not specifically addressed, but still subject to individual project determination by the Board of Directors.
3.	In design of new District projects concerted effort made to save all significant vegetation and habitation. (Item 2)	3.	Same. (Item 1)
4.	All new District projects designed with aesthetic concern and landscaped. Consideration given to reestablishment of riparian habitat. (Item 3)	4.	Determination of extent of revegetation work, will include adequate consideration being given to project's benefit on environment, such as the space preserved, or the natural revegetation that will occur, and the availability of funds for installation and maintenance. (Item 2)

EXHIBIT VI-B

Resolution No. 79-76 (continued)

Comparison Between Resolution 74-40 and Proposed New Resolution

	Resolution 74-40		Proposed New Resolution
5.	Trees removed for essential maintenance replaced in same neighborhood. (Item 4)	5.	Same, but expanded to include significant riparian vegetation. (Item 5)
6.	Low maintenance type plants. Plant materials used should not require irrigation after a short establishment period. (Item 5)	6.	Same. (Item 9)

Added to the proposed Resolution are the following items:

A. Revegetation plans to be developed in general conformance with concepts presented in report on Landscape Program Review or as amended from time to time by the Board of Directors. (Item 4).

B. Emphasis made to seek cooperation and sharing of costs with cities and County. (Item 3)

C. Where on-site revegetation is not feasible, the Board will consider other mitigating activities. (Item 7)

D. Unless directed by the Board, landscaping enhancement will not be considered. Enhancement proposed by others will be paid for by the proposing group or agency. (Item 8)

EXH T VI-B
Resolution No. 79-76 (continued)

9/18/79 y

Comparison of Present Landscape Plan and Proposed New Revegetation Plan

The present Landscape Plan developed from 1974 to 1978 has some inherent problems which surfaced during the time the Plan was being implemented. In late 1976 concerns were raised with respect to the success of the landscaping installed and a review of the landscaping effort was started in early 1977. The proposed New Revegetation Plan proposes to correct these problems by experiences gained.

Present Plan	Proposed New Plan
1. Plant more plants than are expected to grow. See Table III.	1. Insure close to 100% survival. . Larger plants, but few plants planted.
2. Hydro-seed area with native plant and wildflower seeds.	2. Selectively used and irrigated. May be used on slopes for erosion protection. Seed used carefully selected.
3. Utilization of many liners. Planting done in fall with no irrigation provided.	3. No liners used except in tandem planting. Irrigation provided for all plants.
4. Completed District projects landscaped, subject to fee title ownership and availability of funds.	4. Prior completed projects to be revegetated as determined by the Board of Directors.

EXHIBIT VI-B
Resolution No. 79-76 (continued)

Comparison of Present Landscape Plan and Proposed New Revegetation Plan

	Present Plan		Proposed New Plan
5.	No provision made for weed control prior to landscaping.	5.	A thorough weed control program shall be a part of the revegetation program.
6.	Maintenance period after planting from 3 to 6 months.	6.	Maintenance period after planting by contractor will be one year.
7.	Maintenance responsibility after guarantee period to be performed by Maintenance Division.	7.	Maintenance during the establishment period to be done by outside contract. After establishment period, maintenance to be continued by Maintenance Division.
8.	A landscape program on all projects regardless of vegetation in area.	8.	Revegetation to mitigate adverse effects of project on environment.

Right of Way Acquisition Policy

In the development of needed District projects, it sometimes becomes necessary for the District to acquire private property to complete the construction as proposed. If all or a portion of a parcel of property is required for a District project, the following applies:

- Before the acquisition process begins, the District has the property appraised by a professional appraiser to determine the fair market value of the land required. The owner is given the opportunity to accompany the appraiser during the inspection of the property and to bring out any salient features which the owner believes to be relevant to value.
- Upon completion of the appraisal, a member of the District's Real Estate Division informs the owner of the appraisal and works out the details of the purchase of the property.
- Upon reaching an agreement with the owner, the District opens an escrow and pays all fees relative to the conveyance of the property to the District.
- An owner or tenant of a residence or business that is acquired by the District may be eligible for Relocation Payments pursuant to applicable State and Federal laws. Generally, and within established guidelines, the District will pay for the owner's moving expenses, increased cost of purchasing or renting a replacement residence and incidental closing expenses incurred in purchasing a replacement residence.

Details are shown in the District's Relocation Assistance Booklet which is available upon request.

EXHIBIT VI-C
Resolution 74-38

RESOLUTION NO. 74-38

DECLARING POLICY GOVERNING JOINT PUBLIC USE OF DISTRICT FACILITIES

RESOLVED by the Board of Directors of Santa Clara Valley Water District that, it being deemed in the public interest to secure diversified uses of District property to the greatest extent compatible with the primary purpose of such property, it is hereby declared to be the policy of this Board that, upon conditions outlined below and others of like nature deemed necessary by this Board, the joint use of District facilities by properly empowered public agencies is favored.

A. Such joint use shall not unduly interfere with the District's use;

B. The agency which it is proposed shall make such joint use will assume full responsibility for maintenance and policing of the use and full responsibility for damage or claim of damage of every kind resulting from the use and will further provide adequate public liability insurance coverage;

C. The installation, maintenance and removal of improvements or structures necessary or convenient to the joint use shall be at the sole cost of the agency proposing such joint use; and

D. The agency proposing such joint use will secure the

Resolution Declaring Policy Governing Joint Public Use of District Facilities.

comment and opinion of the adjacent property owners and of the affected community by public hearing and make a report of such comment as part of its proposal; provided, that the requirement of a public hearing may in any appropriate case be waived by the District.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District, this 7th day of May, 1974, by the following vote:

AYES: Directors J. CHIRI, M. E. DULLEA, P. T. FERRARO, ~~J. J. LENIHAN~~, ~~E. A. MIRASSOU~~, C. RUSH, R. T. SAPP.

NOES: Directors None

ABSENT: Directors J.J. Lenihan, E.A. Mirassou

SANTA CLARA VALLEY WATER DISTRICT

By: Joseph Chiri
Chairman of the Board of Directors

ATTEST: VIOLET V. ENANDER

Violet V Enander
Clerk of said Board of Directors

EXHIBIT VI-D
Resolution 76-39

RESOLUTION NO. 76-39

ADOPTING JOINT GUIDELINES OF THE CITY OF SAN JOSE AND THE SANTA CLARA VALLEY WATER DISTRICT FOR THE PLANNING, DESIGN, AND CONSTRUCTION OF BRIDGES

RESOLVED, by the Board of Directors of Santa Clara Valley Water District that the within and foregoing

CITY OF SAN JOSE-
SANTA CLARA VALLEY WATER DISTRICT
JOINT GUIDELINES FOR THE PLANNING,
DESIGN, AND CONSTRUCTION OF BRIDGES

shall be approved and hereby adopted; and that, from and after approval and adoption thereof by the said City of San Jose by appropriate Council Resolution, the same shall apply to and govern this District in all matters and relationships therein specified.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District on MAR 2 0 1976 by the following vote:

AYES: Directors J. CHIRI, M. E. DULLEA, P. T. FERRARO, J. J. LENIHAN, E. A. MIRASSOU, C. RUSH, R. T. SAPP.

NOES: Directors NONE

ABSENT: Directors NONE

SANTA CLARA VALLEY WATER DISTRICT

By: ______________________
Chairman of the Board of Directors

ATTEST: VIOLET V. ENANDER

____
Clerk of said Board of Directors

JOINT GUIDELINES OF THE CITY OF SAN JOSE AND THE SANTA CLARA VALLEY WATER DISTRICT FOR THE PLANNING, DESIGN AND CONSTRUCTION OF BRIDGES

March 23, 1976

INTRODUCTION

The City of San Jose through its roadway construction and improvement program, and the Santa Clara Valley Water District through its program of construction and improvement of flood control works, frequently require the planning, design, construction, reconstruction and maintenance of bridges. Because of varying needs, priorities and funding capabilities of highway and flood control programs, accomplishment of all City and District projects in the same area and at the same time is not always practical. Nevertheless, bridges are of special importance to each program and therefore require close coordination to assure that both trafficway and floodway capacities, consistent with accepted standards, are provided.

It is the objective of both agencies to achieve overall public economy and to avoid wasteful future work or replacement of bridges wherever practicable. Accordingly, these guidelines establish responsibilities and financial obligations of the City of San Jose and the Santa Clara Valley Water District relative to bridge projects initiated by either agency.

POLICY PROVISIONS

I. General

The term "bridge" shall mean any structure or conduit required to be constructed for the purpose of conveying flood waters under a public roadway and permitting at the same time

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the safe passage of vehicular and pedestrian traffic along the roadway.

Because bridges are expensive and are, in general, detrimental to the passage of flood flows, it is desirable to minimize the number of bridges and to provide advanced transportation planning in all areas subject to flood control channel modification.

Advanced transportation planning is important for all stream crossings and particularly critical in the case of natural floodplains and modified floodplain channels. Accordingly, street systems should be developed in conformance with "Recommended Creek Parkchain Policies" (Appendix "A" attached hereto), adopted in April, 1973 by the City and the District and "Policy No. 8-3" (Appendix "B" attached hereto), adopted June, 1973 by the City, or as such documents are mutually amended.

Furthermore, it is important that all stream crossings be constructed to span a channel section adequate to convey the design flood flow. The channel section established by the District may be any type from a full structural section to a modified or natural floodplain. Some obstruction of the waterway, if carefully limited, can be tolerated in the shallow-flow low-velocity areas such as along the edges of a trapezoidal channel or a floodplain.

Where the transportation standards established by the City allow, low flow crossings (fords) may be utilized. This type of crossing is normally used on minor roads where continuous service is not required. Such crossings are available for most of the year and may represent a lesser capital investment than bridges.

II. Design Standards

All bridge construction, including fords, bridge reconstruction or bridge improvement projects undertaken by either the City or the District shall result in full compliance with transportation standards established by the City and with flood control standards established by the District. These are summarized as follows:

A. Bridge span, waterway opening and other hydraulic criteria shall conform to accepted engineering practice and shall be based on the proposed channel section adequate to convey the design flood flow as prescribed by the District.

B. Overland surface drainage release points of adjacent roadways will be maintained or improved and must be provided for as part of any bridge project.

C. Roadway width and related transportation criteria shall conform to minimum urban or rural standards as described below.

D. Any bridge betterments above said standards prescribed by either agency shall be made solely at the expense of that agency.

For the purpose of establishing the minimum width bridge to be constructed and funded in accordance with these guidelines, the following standards will be used:

Urban Standards

Roadway widths under urban standards will be that of the existing facility unless such widths are less than 12 feet per lane with at least 6-foot shoulders on each side. In that case, the roadway width will be the number of lanes times 12 feet plus two 6-foot shoulders and safety curbs and railings. In addition, the bridge would include sidewalks to the extent they were part of the bridge to be replaced or modified.

Rural Standards

Roadway widths under rural standards will be that of the existing facility unless such widths are less than 12 feet per lane with at least 2-foot wide shoulders on each side. In that case, the roadway width will be the number of lanes times 12 feet plus two 2-foot wide shoulders and safety curbs and railings. In addition, the bridge would include sidewalks to the extent they were part of the bridge to be replaced or modified.

Distinction as to the areas which are urban vs. rural will be based upon the City of San Jose's Urban Development Policy adopted by the City Council on October 19, 1970, and as revised in November, 1974 (Exhibit "C" - Urban Service Area Boundary, attached hereto), or as may be amended by the City.

III. Cost Allocation

A. When the City proposes construction of a new bridge over a waterway where there is no existing bridge, all costs are to be borne by the City.

B. When the District proposes construction of a new or relocated waterway which creates the need to construct a both new and additional bridge to cross existing City streets, all costs to construct such a bridge to rural or urban standards are to be borne by the District.

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C. When an existing bridge structure conforms to adopted transportation standards, but a current District project requires an increase in the waterway opening, all costs to construct such bridge to rural or urban standards are to be borne by the District.

D. When an existing bridge structure provides adequate waterway opening to conform with adopted flood control standards, but a current City project requires improvements to the transportation or pedestrian features of the structure, all costs are to be borne by the City.

E. When an existing bridge is not in conformity with either adopted transportation or flood control standards, the cost of bridge improvements resulting either from a project of the City or a project of the District shall be allocated between the two agencies on a percentage basis computed by dividing the width assigned to each agency by the total extended width of the new bridge structure measured perpendicular to the trafficway. Twin bridges used at one street crossing will be added together and considered as one bridge.

The total cost of the bridge project includes the cost of construction, utility relocation, rights of way, engineering and inspection. The bridge project herein considered for cost-sharing shall include the bridge structure plus only that traffic and floodway work, and rights of way, located within the designated limits mutually established for each project. Necessary

/23/

project rights of way, in addition to those under existing ownership, shall be acquired by the constructing agency and included in the project cost. Rights of way previously acquired by either agency shall be made available to the project at no cost.

The width of bridge assigned to each agency shall be determined as follows:

1. URBAN BRIDGES - District Share of Width (in feet)
   a. The existing width of roadway, including shoulders, or, the number of existing traffic lanes times 12 feet and a 6-foot shoulder, whichever is greater.
   b. One half of the total existing sidewalk widths.
   c. One half of the total width of safety curbs and railings.
2. URBAN BRIDGES - City Share of Width (in feet):
   a. All roadway and shoulder width in excess of District responsibility as prescribed in E-1.a above.
   b. All sidewalk width in excess of one half the total existing sidewalk widths.
   c. One half of the total width of safety curbs and railings.
3. RURAL BRIDGES - District Share of Width (in feet):
   a. The existing width of roadway, including shoulders, or, the number of existing

traffic lanes times 12 feet and a 2-foot shoulder, whichever is greater.

  b. One half of the total existing sidewalk widths.

  c. One half of the total width of safety curbs and railings.

4. RURAL BRIDGES - City Share of Width (in feet):

  a. All roadway and shoulder width in excess of District responsibility as prescribed in E-3.a above.

  b. All sidewalk width in excess of one half the total existing sidewalk widths.

  c. One half of the total width of safety curbs and railings.

IV. Cost-Sharing Reimbursement

Funds needed for the project will be advanced by the constructing agency. Where costs are to be shared, the agencies will execute an agreement for each project to provide for appropriate reimbursement to the constructing agency within a stated time.

Grants and reimbursements, exclusive of land dedications, from third parties for portions of the bridge cost will be used by the agency to which the grants and reimbursements are given.

V. Right of Way and Responsibility for Structures and Maintenance

Bridges constructed pursuant to Section III, Cost Allocation, shall be subject to the following understandings relative to rights of way and general responsibilities:

/23/

A. Rights of way within the designated project limits shall be assigned to provide, where possible, fee ownership to the City for roadway purposes and easement ownership to the District for flood control purposes. Conveyance of rights of way between the City and District within such designated project limits for bridge construction shall be at no cost except as provided for in section III-E herein.

B. The structural integrity of the bridge structure shall be the responsibility of the City. This responsibility includes, where the structure is a bridge, maintaining the structural integrity of the wingwalls, footings, abutments, piers and deck. When the structure is a single or multibarrel culvert, the entire culvert will be considered part of the structural component of the bridge to be repaired or replaced by the City. Culverts shall mean all box culverts and metal or concrete pipes of any cross-sectional shape.

C. The District will perform all work necessary to maintain the flood carrying capacity of the channel at the bridge or culvert and will protect the bridge or culvert footings, wingwalls, abutments and piers from damage caused by flood flow. Any channel approaches and slope protection works not a part of the structure will be repaired and maintained by the District.

RECOMMENDED CREEK PARKCHAIN POLICIES

POSITION: By utilization of flood plain concepts the existing creeks which flow through San Jose offer an unusual opportunity to develop a lineal city-wide park system which would:

1. extend finger-like park and open space projections into our residential communities and downtown areas;
2. provide environmental experiences and recreation activities not possible in neighborhood and district parks;
3. enable the public to transverse throughout the valley floor by means of hiking, equestrian and bike trails; and
4. allow motorists to have scenic drive experiences within the city by having streets placed along lineal flood plain park chains.

POLICIES:

1. A creek, and its flood plain or modified version thereof, will be considered for inclusion in the park system of the city if it meets at least one of the following conditions:
    - (a) Provides a unique, natural open space setting after flood control work is completed.
    - (b) Provides considerable recreation opportunities as the result of a flood control project, although the area may not be a unique natural setting.
    - (c) Is contiguous to connecting links with other publicly-owned recreation areas, schools, libraries or community focal points.
    - (d) Is a part of a city-wide hiking and equestrian trail and bike path.
2. The Santa Clara County Flood Control and Water District has already adopted a policy that where physically, financially, and environmentally feasible, the flood plain or modified flood plain (use of levees) concept will be utilized for flood control purposes. The City shall cooperate and support the District in implementation of this policy.
3. The Flood Control District is generally responsible for the acquisition of the "designated floodway" rights-of-way and the City is

Definition:
A "designated floodway" is the channel of the stream and that portion of the adjoining flood plain as determined by the Flood Control District to be required to reasonably provide for the construction of a flood control project, i.e. (1) a vertical wall concrete channel, (2) an underground pipeline, (3) a lined or unlined trapezoidal channel, (4) a modified flood plain including levees; or even (5) a natural floodplain. In all cases, maintenance access roads are included as part of lands required.

generally responsible for the acquisition of additional rights-of-way needed for park or other purposes. Where urban development is planned in the immediate future, the City should require reservation of the necessary park land and "designated floodway" acreage. Within the "designated floodway", the developer should be required to dedicate to the Flood Control District the area normally required if a trapezoidal channel were to be used for flood control purposes. The Flood Control District should purchase the remaining "designated floodway" area. The City then should purchase, at fair market value, that area reserved for the park which would be outside of the "designated floodway".

4. Where a flood control improvement is not planned in the immediate future but the City desires to proceed with the acquisition of land for a parkchain along a stream, the City may proceed with such acquisition and the Flood Control District will reimburse, consistent with a mutually satisfactory agreement, the cost of such land acquisition as in included in the "designated floodway" when funds are available to the District. Where the flood control improvements are to be installed before the City is ready to use the modified flood plain as a parkchain, the District may proceed with the acquisition of the "designated floodway". The City will reimburse the District the cost of such acquisition of parklands acquired outside the "designated floodway", consistent with a mutually satisfactory agreement.

5. "Designated floodways" not included in the city's park system should be maintained in an aesthetically pleasing manner as open space by the Flood Control District.

6. Whether a "designated floodway" is included in the park system or whether it remains open space under complete operating jurisdiction of the Flood Control District, the standards for landscaping shall be in accordance with a mutually acceptable policy.

7. The Flood Control District has the responsibility to mitigate any adverse environmental effects,including aesthetics, of structural channel facilities. This could be done by architectural design and landscaping treatment.

8. Where private development is planned adjacent to a "designated floodway" to be used for park and open space purposes, the developer, under the authority of the Subdivision Map Act, shall be required to dedicate and improve public street right-of-way in order to provide:

   (a) a logical neighborhood development and circulation pattern;

   (b) a reasonable separation relationship between the urban usage and park usage;

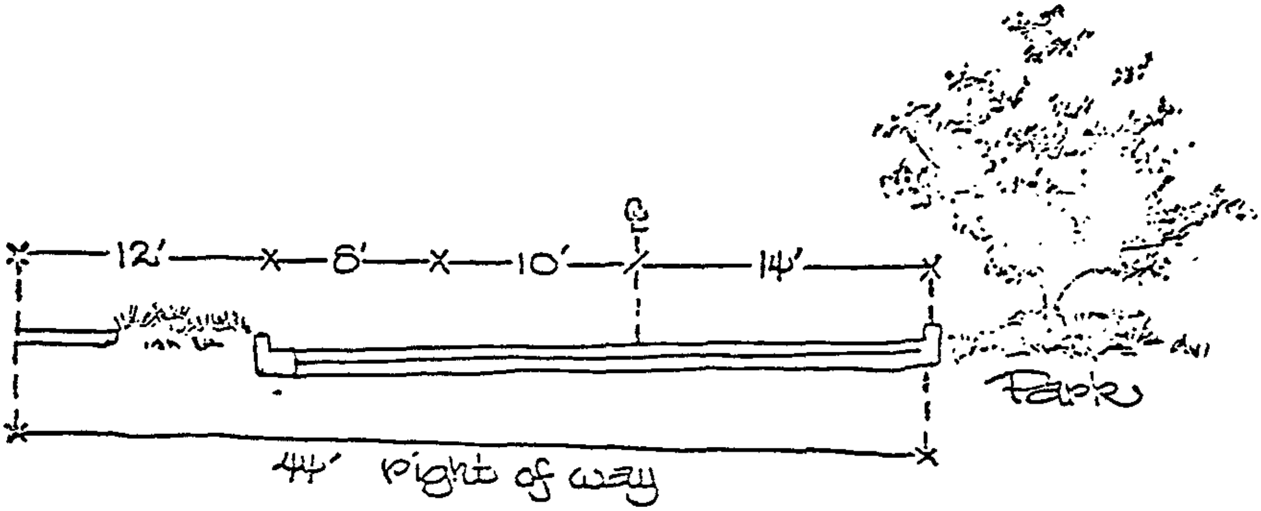
   (c) maximum park exposure along the creek for scenic and security reasons; and

   (d) convenient access to the stream for flood control and park maintenance purposes.

EXHIBIT VI-D
Resolution 76-39 (continued)

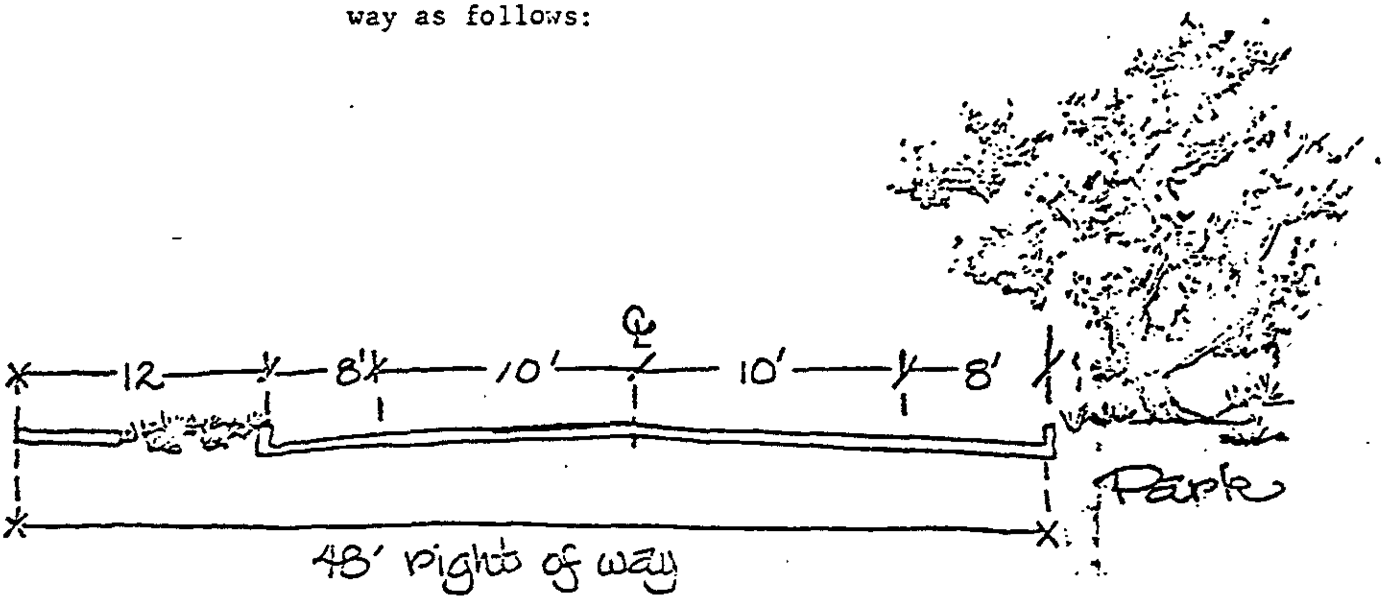
The developer shall be required to dedicate and improve the public right-of-way in one of two ways:

(a) Where the City determines that on-street parking is not required adjacent to a public park, the developer shall dedicate and improve a 44-foot right-of-way as follows:



This street section is now the City of San Jose right-of-way standard for frontage roads. There is no provision for on-street parking on the park side, under the assumption that required parking will be provided on-site directly related to recreational activities.

(b) Where the City determines that on-street parking is desired, the developer shall dedicate and improve a 40-foot right-of-way and the City shall improve the remaining 8-foot right-of-way as follows:



This street section is the City of San Jose standard minor street right-of-way, excluding one parkway and sidewalk adjacent to the park, and provides for parking on both sides of

EXHIBIT VI-D
Resolution 76-39 (continued)

9. The City is responsible for construction and operation of all trails, paths and recreation facilities within the flood control right-of-way so determined to be a part of its park system. Cost of maintenance road enhancement as desired by the City above Flood Control District standards will be paid for by the City.

10. The Flood Control District is responsible for all flood control channel maintenance.

11. The City is to require of contiguous private development, sympathetic design, landscaping and public access to public areas adjacent to creeks, by means of sub-division approval, site permits, variance and P.D. permits.

12. The City is responsible to enact effective land use controls by zoning powers, i.e. flood plain zoning districts, in the "designated floodway".

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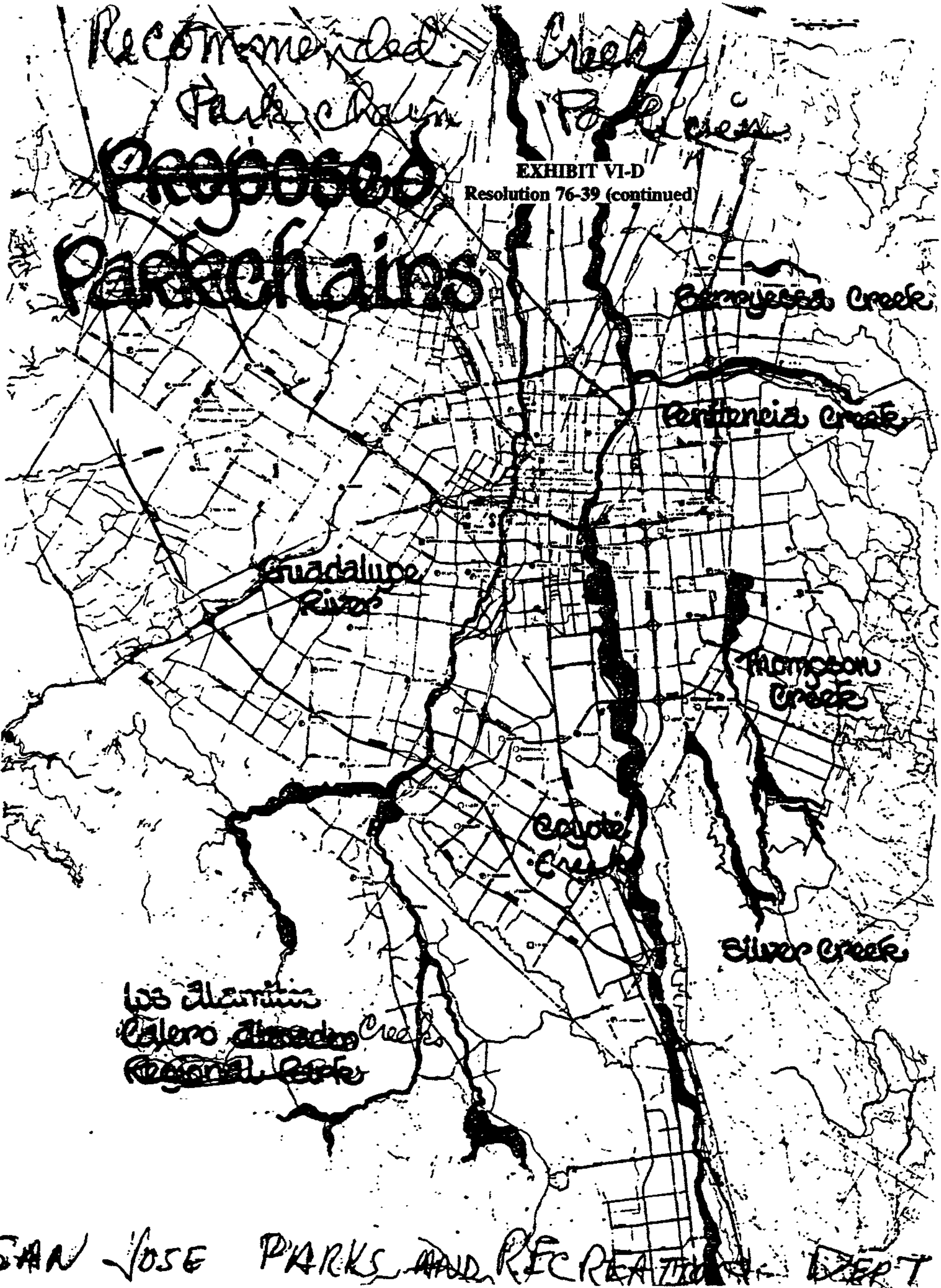
EXHIBIT VI-D
Resolution 76-39 (continued)

Recommended Creek Park Chain Policies

~~Proposed~~ Parkchains



SAN JOSE PARKS AND RECREATION DEPT

EXHIBIT VI-D
Resolution 76-39 (continued)

COUNCIL POLICY

APPENDIX B

TITLE
FRONTAGE ROADS AND MINOR STREETS ADJACENT TO PUBLIC PARKS AND OPEN SPACES

PAGE 1 OF 2
POLICY NUMBER 8-3
EFFECTIVE DATE 7-24-72
REVISED DATE 6-25-73

APPROVED BY
Council Action July 24, 1972 Revised June 25, 1973

BACKGROUND

The City Council of San Jose is responsible, under provisions of the Subdivision Ordinance, to control the design and improvements of public streets. This Council recognizes that public parks, open spaces, and other similar public areas require adjacent public streets.

PURPOSE

It is the purpose of this policy to:

A. Establish uniform and reasonable dedication and improvement standards with respect to frontage roads and minor streets adjacent to public parks and open spaces.

B. Upgrade previous dedication and improvement requirements adjacent to such public areas in order to insure the public safety, convenience and general welfare by insuring full street improvements at time of private development.

POLICY

It is the policy of the City of San Jose that:

A. Urban development opposite public parks and open spaces shall be designed in a manner to insure maximum exposure of the public facility to the public.

B. That minor public streets, proposed by urban development, opposite public parks and open spaces shall be improved to the following standards:

1. City-wide, flood plains, and other regional parks (not eligible for Construction and Property Conveyance Tax).

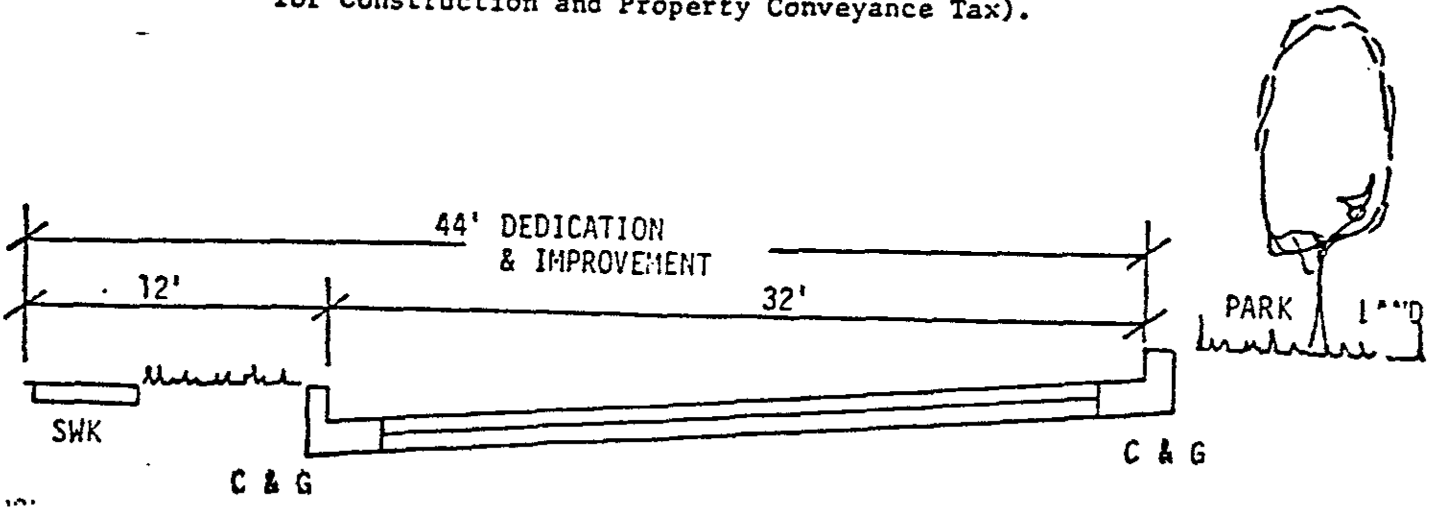


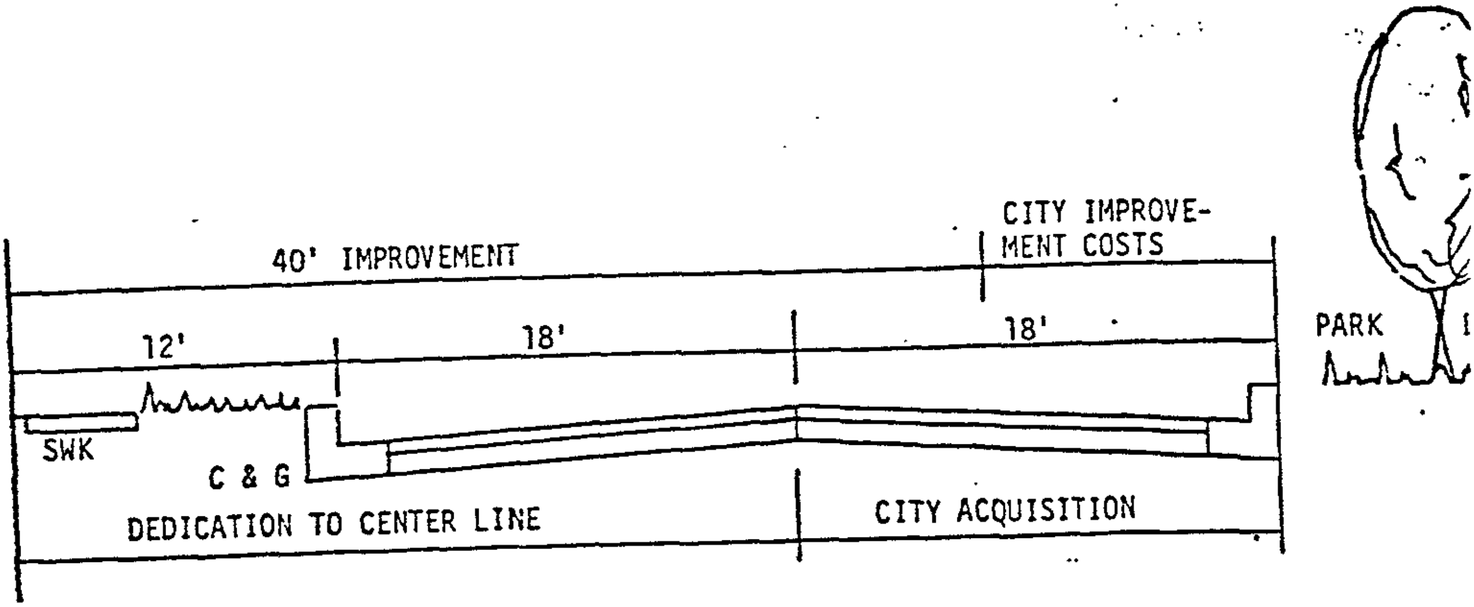
EXHIBIT VI-D
Resolution 76-39 (continued)

TITLE	PAGE	POLICY NUMBER
FRONTAGE ROADS AND MINOR STREETS ADJACENT TO PUBLIC PARKS AND OPEN SPACES	2 OF 2	8-3

The City will normally require a 44' frontage road adjacent to City-wide park lands. Example: Coyote Creek Parkway. Proposed development shall be required to dedicate and improve a 44' right-of-way.

2. Neighborhood and District Parks (eligible for Construction and Property Conveyance Tax).

Where the City determines that a 44' or 48' street improvement section is desirable and placement of a half-street improvement requirement is to be on City park lands, the proposed development adjacent to public park lands shall dedicate to centerline of right-of-way and install permanent improvement of 40'. City is obligated to purchase to centerline of street right-of-way and for cost of remaining street improvement on City park lands.



NATIONAL FLOOD INSURANCE PROGRAM

INTRODUCTION

Natural disasters in this county have, from time to time, created personal hardships and economic distress which have resulted in disaster relief measures that have placed an increasing burden on the nation's resources. Although it is not possible to determine the magnitude or when a natural disaster will occur, careful attention to land use and construction standards can diminish this burden and the risk of property damage can be shared through an insurance program. The National Flood Insurance Program was created by Congress in 1968 to mitigate the impact to communities and individuals of the most prevalent natural disaster, property damage due to flooding and flood-related hazards. This program was broadened in 1969, 1973, and 1975 to strengthen the program, and altered in 1976 and 1977 to exclude certain properties from the flood insurance requirement and extend the limits of coverage for nonsubsidized insurance.

The National Flood Insurance Program enables property owners to acquire flood insurance at previously unavailable affordable rates through a program administered by the Secretary of Housing and Urban Development. Insurance policies are purchased through licensed insurance brokers. All risk capital including the cost difference between actuarial and affordable rates is provided by the Federal Government.

ROLE OF CITIES AND COUNTY

Before property owners can obtain flood insurance through the National Flood Insurance Program the local community (city or county) must join the program, and those communities with identified flood hazard areas must adopt and enforce floodplain management measures that will diminish the impact of future floods. In these communities coverage on structures and their contents is available for residential, business, and agricultural properties, and for properties owned by private nonprofit organizations and local and state governments. For property located in identified flood hazard areas, the availability of loans from federally-backed or regulated lending institutions is conditional upon the purchase of flood insurance. Also, the availability of federal loans and grants for projects located in these identified flood hazard areas is conditioned upon this insurance requirement. This insurance requirement for federally regulated funding does not apply to property located in identified flood hazard areas in communities not in the program. In these communities, federally-backed loans and grants are not available.

All of the cities in Santa Clara County and Santa Clara County are participating in the National Flood Insurance Program.

The insurance is available following the completion of a flood insurance rate study and the adoption and enforcement of detailed land management measures by the local community. The data needed to fully define floodplain management measures is provided by Federal Insurance Administration (FIA), a division of the Federal Emergency Management Agency (FEMA), and shown on Floodway and Flood Insurance Rate Maps. These maps define floodways and limits of flooding from the 100- and 500-year floods in channelized areas. In areas subject to flooding from sheet flow the maps show the limits of flooding where the depth of water from the 100-year flood is greater than 1 foot. Floodplain management measures will place a moratorium on the building of new structures in the designated floodway. For new structures built in the flood hazard area, certain damage resistant construction standards must be observed. Flood insurance rates are based on flood hazard factors and rate zones defined in the flood insurance rate study and shown on the Flood Insurance Rate Maps. If a community joins the program but fails to enforce the land use controls defined by FIA, it may be removed from the program. This will terminate the availability of flood insurance, federally backed financing for property owners, and the federal government may withhold federal grants and loans until the community demonstrates that these controls will be enforced. A community that elects not to join the program after notification may, at a later date, join the program and reinstate its eligibility for federal financing. Federal funding, including grants and loans for property outside identified flood hazard areas, is still available to the community that elects not to join the program. Flood insurance requirements and land use measures imposed by FIA will remain in effect until flood control measures that protect the local community from flooding based on the 100-year flood are completed.

Disaster relief for the protection of life and health may be made available to all communities for the repair of utilities and other community facilities to meet emergency needs. Federal grants and loans for the complete restoration of facilities located in the flood hazard area may not be made available until the community joins the program. Disaster relief funds for the reconstruction of structures may be contingent upon the purchase of flood insurance.

Flood insurance policies may be purchased through any licensed agent. Standard policies will be issued under the provisions of the National Flood Insurance Program.

The Act establishes explicit procedures for communities and individuals to appeal designated flood hazard areas and elevations of inundation and sets the scope for judicial review for such determinations. These appeals can be initiated at any time by the community or property owner and include appeals for an insurance premium refund if flood hazard areas are removed from the FIA identification.

All communities in Santa Clara County have been notified by FIA that certain areas in their jurisdiction are subject to flooding from the 100-year flood. Flood Insurance Rate Maps showing the limits of flooding identified by FIA are available for inspection at the local community civic offices.

Role of Santa Clara Valley Water District

The Santa Clara Valley Water District is the major agency in Santa Clara County responsible for providing protection against flooding. In this capacity the District is not directly involved in the implementation and enforcement of land-use measures and therefore is not directly involved in the National Flood Insurance Program. Since the construction of flood protection facilities alters the impact of the program on the local community, the District works with the Cities and County in the development of flood control facilities and acts as a consultant on matters related to the program. Also, the information developed by the Federal Insurance Administration defining the flood hazard, floodplain management criteria and nonsubsidized insurance rates is in part based on information developed by the District.

For property owners located in identified flood hazard areas, the purchase of flood insurance is a precondition to obtaining federally-backed funding. To assist the public, the District provides a central source of information relative to the program.

As the National Flood Insurance Program is broadened or altered and identified flood hazard areas are changed, the impact on property owners and the local community may change. It is anticipated that coordination with the public, Cities, and County will continue to be provided by the District.

DAM FAILURE FLOOD HAZARD MAPS AND EVACUATION PROCEDURES

INTRODUCTION

State Senate Bill 896, Chapter 780, added Section 8589.5 to the Government Code relating to dam safety. The Act became effective in March 1973 and requires dam owners to identify potential flood hazard areas in populated areas should failure of a dam occur and requires local communities to establish emergency evacuation and control procedures.

The Act recognizes that the potential for personal injury or death can be greatly reduced if emergency procedures for evacuation and control in populated areas subject to flooding are implemented.

The program is administered by the State Office of Emergency Services (OES) which, under the provisions of the Act, is required to identify all dams in populated areas where the partial or total failure of the structure could cause death or personal injury. This identification includes all impounding structures defined as dams by the State in the ten counties which have a population density over 300 persons per square mile, and all dams exceeding 75 feet in height or 10,000 acre-feet in capacity in the remaining 48 counties.

Owners of identified dams are required to prepare and file with the OES flood inundation maps based on criteria established by the State. Using these maps the local community is required to prepare emergency evacuation plans that conform to local needs and the intent of the Act for those identified as subject to inundation.

ROLE OF THE SANTA CLARA VALLEY WATER DISTRICT

Under the provisions of the Act, Santa Clara County has been classified as one of the counties where flood inundation maps must be prepared for all dams. Storage facilities that are classified as dams under the state criteria have been identified by OES and the owner so notified. For the District these include the following dams:

Almaden
Anderson
Calero
Chesbro
Coyote
Coyote Percolation
Guadalupe
Lexington
Rinconada
Stevens Creek
Uvas
Vasona

The District has prepared maps showing potential limits of flooding from water released by individual structure failures and times after the initial break when damaging flows first reach certain areas. These maps were submitted to OES for review in September 1973. A composite of the flood inundation maps is contained in Exhibit VIII-A.

Although the District is not directly involved in the preparation of emergency evacuation and control plans, it will continue to supply information that may be helpful in developing and implementing these plans.

ROLE OF THE CITIES AND COUNTY

Under the provisions of the Act and based on the inundation information provided by dam owners, the OES has designated areas where death or personal injury could result from a dam failure. Based on this designation, the appropriate city and county public safety agency must prepare and adopt emergency procedures for the evacuation and control of populated areas under its jurisdiction. Emergency procedures must conform to local needs and may be required by the OES to include: 1) delineation of the area to be evacuated; 2) routes to be used; 3) traffic control measures; 4) shelters to be activated; 5) methods to move people without transportation; 6) identification of areas which do not require evacuation; 7) definition of special evacuation procedures; 8) procedures for securing the hazard area; 9) procedures for lifting the evacuation order and 10) material and personnel requirements.

In Santa Clara County emergency services coordination is provided through the County Office of Emergency Services. Emergency evacuation plans have been prepared for each of the dams in the County and have been adopted by the State. It is the responsibility of the local communities to maintain and update these plans. Each agency is encouraged by the State to establish a program whereby each plan is reviewed every 2 to 3 years.

APPENDIX A—DISTRICT STATISTICS

FLOOD CONTROL EMPHASIS
HISTORY

June 19, 1934	First bond issue passed ($2 million) for construction of District's first six dams and reservoirs.
July 19, 1951	Santa Clara County Flood Control and Water Conservation District was created and placed under the direction of the County Board of Supervisors pursuant to Special Legislative Act.
1952	First cloud seeding began.
1952	The concept of the Guadalupe Flood Control project was born.
August 19, 1954	Central Santa Clara Valley Water Conservation District annexed to Santa Clara Valley Water Conservation District.
December 1955	Famous "Christmas Week" floods left thousands homeless.
October 2, 1956	$6.4 million successful Northwest Flood Control Zone G.O. Bond Election held.
November 20, 1961	Contract signed with the State to import water from the future South Bay Aqueduct of the State Water Project.
June 11, 1963	$42,050,000 successful Water G.O. Bond Election held.
October 8, 1963	$12,750,000 successful North Central Flood Control Zone G.O. Bond Election held.
July 1, 1964	Santa Clara County Flood Control and Water Conservation District changed name to Santa Clara County Flood Control and Water District (eliminated the word "Conservation").
1965	First deliveries of water made through the South Bay Aqueduct and Central Pipeline.
March 7, 1968	Santa Clara Valley Water Conservation District ended its existence by merging with Santa Clara County Flood Control and Water District governed by an independent board.
1969	District has significantly replenished groundwater basin and halted land surface subsidence.
January 1, 1974	Santa Clara County Flood Control and Water District changed name to Santa Clara Valley Water District.
May 31, 1977	$56 million first Water Revenue Bonds approved by voters.
June 7, 1977	San Felipe Contract with Bureau of Reclamation signed.
June 9, 1981	Benefit assessment levied in flood control zones by Board for one year.

June 8, 1982	Voters approved flood control benefit assessment program for nine more years.
November 6, 1984	Voters authorized issuance of Water Utility Revenue Bonds as needed.
1986	Voters approved revised benefit assessment program through June 2000 in Northwest, Central, East, and South Zones.
1987	South County residents voted to consolidate Gavilan Water District with the District, adding three percolation ponds and two reservoirs, Chesbro and Uvas, to the District's system.
June 1990	Voters approve revised benefit assessment program through June 2000 in the North Central Zone.
1992	Construction begins on the Guadalupe River Flood Control Project through downtown San Jose, paving the way for the Guadalupe River Park.
July 1994	Issuance of COP's.

GENERAL FACTS

POPULATION: Estimated January 1, 1994:	1,585,000
Estimated January 1, 2000:	1,689,600
TOTAL COUNTY ASSESSED VALUE (1984-85):	$54,415,000,000
GROSS AREA OF SANTA CLARA COUNTY:	849,000 Acres 1,300 Square Miles
TOTAL LENGTH OF FLOOD CONTROL FACILITIES:	758 Miles
LENGTH OF FLOOD CONTROL CHANNELS THAT ARE ADEQUATE TO CONVEY 1% FLOOD	350 Miles
EXISTING DEVELOPMENT SUBJECT TO FLOODING:	62,000 Acres 97 Square Miles
RESERVOIR STORAGE VOLUME (District):	170,137 Acre-Feet
DISTRICT FLOOD CONTROL RIGHT OF WAY	
FEE:	2,560 Acres
EASEMENT:	2,557 Acres
TOTAL:	5,117 Acres

AVERAGE ANNUAL TAX AND ASSESSMENT TO THE DISTRICT FOR FLOOD CONTROL

	Northwest Zone	North Central Zone	Central Zone	East Zone	South Zone
Benefit Assessment	51.48	15.50	32.16	32.16	51.48
Tax for $150k AV Home	18.92	14.63	17.27	26.48	23.03
Total	70.40	30.13	49.43	58.64	74.51

FLOOD CONTROL INVENTORY

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Northwest Zone			
Adobe Creek	10.84	14.01	3,080
Arastradero Creek	1.13	0.95	360
Barron Creek	3.09	4.92	830
Deer Creek	1.60	2.46	740
Hale Creek	4.80	3.16	1,130
Heney Creek	0.64	0.72	320
Los Trancos Creek	7.25	6.58	2,300
Loyola Creek	--[2]	0.74	--
Magdalena Creek	1.28	0.63	540
Matadero Creek	13.57	7.97	2,900
Montebello Creek	--	1.54	--
Ohlone Creek	--	1.04	--
Palo Alto Flood Basin	27.50	4.92[3]	4,028[4]
Permanente Creek	8.11	12.97	2,400
Permanente Diversion	8.96	1.35	2,400
Purissima Creek	1.25	0.37	400
San Francisquito Creek	42.04	8.77	9,300
Stanford Channel	1.08	1.60	330
Stevens Creek	38.04	20.22	8,300
Swiss Creek	--	1.67	--
West Branch Permanente	--	2.84	--
Bayfront Levees-NW	--	5.87	0
TOTAL		**105.30**	

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[1] Based on 1977 hydrology analysis.

[2] "-- " = This data is currently unavailable; it is in the process of being prepared for inclusion in the 1995 Hydrology Manual.

[3] Length of basin levees.

[4] Inflow of basin is 6,922 cfs.

FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
North Central Zone			
Bonjetti Creek	--	0.14	
Booker Creek	0.50	0.66	320
Calabazas Creek	20.67	13.30	4,300
Daves Creek	0.61	1.62	60
El Camino Storm Drain	3.23	2.31	660
Guadalupe Slough	--	6.32	9,130
Junipero Serra Channel	1.25	2.51	300
Mistletoe Creek	0.58	0.33	200
Page Ditch	0.38	0.86	230
Prospect Creek	1.44	1.38	630
Regnart Creek	3.41	2.94	690
Rodeo Creek	1.43	1.90	320
San Andres Creek	2.00	1.85	880
San Tomas Aquino Creek	39.06	16.55	9,100
Sanborn Creek	1.02	0.34	320
Saratoga Creek	16.56	15.44	4,100
Smith Creek	2.65	3.41	1,000
Sobey Creek	0.63	0.014	285
Sunnyvale East Channel	6.35	6.40	1,050
Sunnyvale West Channel	4.10	3.20	520
Vasona Creek	1.43	0.51	695
Wildcat Creek	4.12	3.84	1,600
Bayfront Levees	--	5.32	0
TOTAL		**91.13**	

[1] Based on 1977 hydrology analysis.

[2] "–" = This data is currently unavailable; it is in the process of being prepared for inclusion in the 1995 Hydrology Manual.

FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Central Zone			
Alamitos Creek	37.96	8.93	8,900
Aldercroft Creek	--	1.39	--
Almendra Creek	1.08	1.88	415
Arroyo Calero Creek	12.4	6.08	2,300
Austrian Gulch	--	1.41	--
Barrett Canyon	--	2.55	--
Briggs Creek	--	1.12	--
Calero Creek	12.39	6.08	2,300
Canoas Creek	18.62	7.39	2,400
East Ross Creek	0.80	0.90	500
Golf Creek	3.08	2.27	1,170
Greystone Creek	1.38	1.56	640
Guadalupe Creek	15.24	28.03	3,000
Guadalupe River	170.64	19.78	21,700
Hendrys Creek	--	0.76	--
Herbert Creek	--	2.27	2,050
Hicks Creek	--	1.8	--
Hooker Gulch Creek	--	1.98	--
Jacques Gulch	--	0.93	--
Larabe Gulch	--	0.96	--
Limekiln Canyon	--	1.8	--
Lone Hill Creek	1.29	0.91	600

[1] Based on 1977 hydrology analysis.

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FLOOD CONTROL INVENTORY

(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Los Capitancillos Creek	--	0.58	--
Los Gatos Creek	54.83	24.05	8,000
Lyndon Canyon Creek	1.9	3.13	890
McAbee Creek	.50	0.47	260
Moody Gulch	--	4.36	--
Phesant Creek	1.40	1.0	2,550
Randol Creek	2.28	1.93	930
Rincon Creek	2.57	1.93	1,100
Ross Creek	9.96	6.16	1,900
Santa Teresa Creek	1.99	1.89	860
Shannon Creek	1.20	1.14	620
Short Creek	0.50	0.52	270
Soda Springs Creek	--	0.66	--
Trout Creek	--	0.28	--
West Branch Randol Creek	--	3.63	--
Bayfront Levees-C	--	0.19	0
TOTAL		**152.69**	
East Zone			
Arroyo Aguague Creek	9	15.15	2,570
Berryessa Creek	22.05	9.66	5,600
Calera Creek	2.93	3.13	920
Cochran Channel	0.5	1.39	250
Coyote Creek	321.62	42.14	14,500
Cribari Creek	1.53	0.34	320

[1] Based on 1977 hydrology analysis.

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FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Crosley Creek	0.93	1.28	250
East Penitencia Creek	1.70	0.68	340
Evergreen Creek	1.98	2.86	500
Fisher Creek	15.78	7.99	4,000
Flint Creek	1.98	1.52	520
Fowler Creek	2.78	2.85	590
Hawk Creek	0.6	0.4	255
Las Animas Creek	12.10	4.66	4,150
Los Buellis Creek	--	0.73	--
Los Coches Creek	4.02	3.41	1,400
Lower Penitencia Creek	27.20	4.13	6,700
Lower Silver Creek	43.50	7.15	5,500
Miguelita Creek	4.49	4.05	600
Misery Creek	0.9	1.46	330
North Babb Creek	2.57	1.29	270
Norwood Creek	2.18	3.13	440
Packwood Creek	10.10	10.89	3,500
Piedmont Creek	1.93	1.46	510
Quimby Creek	2.17	2.05	430
Ruby Creek	1.55	1.61	260
San Felipe Creek	8.00	29.17	4,000
Scott Creek	1.01	3.75	320
Shingle Creek	3.40	6.06	1,400
Sierra Creek	.77	2.10	410

[1] Based on 1977 hydrology analysis.

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FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
South Babb Creek	4.00	3.61	920
Splinter Valley Creek	0.6	1.1	230
Spring Creek	2.4	1.97	720
Sweigert Creek	.94	0.36	190
Thompson Creek	17.99	8.81	3,600
Tularcitos Creek	1.96	0.86	450
Upper Penitencia Creek	23.91	11.04	4,600
Upper Silver Creek	5.96	7.24	950
Willow Springs Creek	1.1	0.97	200
Yerba Buena Creek	2.58	1.52	530
Bayfront Levee E.	--	18.94	--
TOTAL		**232.91**	
South Zone			
Alamias Creek	3.24	2.39	1,200
Babbs Creek	0.8	0.9	440
Bodfish	13.61	9.85	4,300
Burchell Creek	--	1.74	900
Center Creek	1.2	1.12	540
Church Creek	1.75	2.35	810
Crews Creek	2.06	2.31	970
Corrallitos Creek	5.63	2.84	2,200
Croy Creek	2.93	1.52	1,400
Day Creek	0.93	0.78	500
Dewitt Creek	--	0.4	1

[1] Based on 1977 hydrology analysis.

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FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Dexter Creek	1.70	0.98	770
East Little Llagas Creek	24.49	4.83	7,400
Eastman Canyon Creek	--	1.89	--
Edmundson Creek	1.01	0.86	570
Farman Creek	1	0.57	480
Foothill Creek	0.63	0.76	250
Gavilan Creek	2.30	3.88	990
Hayes Creek	1.29	1.12	650
Herson Creek	--	1.42	--
Jones Creek	11.50	4.11	3,700
Lions Creek	3.82	3.94	1,500
Little Arthur Creek	9.46	6.53	3,400
Little Uvas Creek	7.00	4.17	2,300
Live Oak Creek	1.33	2.27	470
Llagas Creek	103.65	33.57	21,000
Lower Miller Slough	1.95	0.99	240
Machado Creek	1.34	1.06	650
Madrone Channel	5.01	4.10	2,100
Maple Creek	0.43	0.59	340
South Morey Channel	0.80	0.67	420
New Creek	1.51	2.23	670
North Morey Channel	1.02	0.29	485
Ortega Creek	2.59	2.37	970
Pacheco Creek	146	9.34	23,000

[1] Based on 1977 hydrology analysis.

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FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL[1] (cfs)
Pajaro River	501	10.65	38,900
Panther Creek	1.43	1.21	620
Pescadero Creek	10.9	4.36	3,800
Princevalle Drain	2.96	1.80	360
Rucker Creek	2.24	1.16	1,100
San Martin Creek	3.74	2.48	1,400
San Ysidero Creek	4.26	3.86	1,600
Sargent Creek	--	1.70	680
Skillet Creek	1.31	1.89	640
Solis Creek	0.94	0.87	600
South Corralitos Creek	.50	0.93	360
Tar Creek	6.39	7.20	2,700
Tennant Creek	2.62	2.78	1,000
Tick Creek	3.55	2.65	1,400
Tilton Creek	--	0.38	--
Upper Miller Slough	--	1.14	760
Uvas-Carnadero Creek	87.50	28.4	16,300
West Branch Llagas Creek	17.74	9.51	5,100
West Little Llagas Creek	5.03	4.36	1,600
TOTAL		**206.61**	

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FLOOD CONTROL INVENTORY
(continued)

FACILITY	DRAINAGE AREA (Square Miles)	LENGTH (Miles)	Q FOR 1% FLOOD AT OUTFALL
ZONE			
NORTHWEST		105.30	
NORTH CENTRAL		91.13	
CENTRAL		152.69	
EAST		232.91	
SOUTH		206.61	
TOTAL		788.64	

DAMS AND RESERVOIRS FACTS

Name	Almaden	Anderson	Calero	Coyote	Chesbro
Drainage area (square miles above dam)	12	192.7	6.9	121	19.5
Year constructed	1935	1950	1935	1936	1955
Reservoir capacity (acre-feet)	1,780	89,073	10,050	22,925	8,952
Reservoir surface area when full (acres)	59	1,244	347	638	265
Reservoir length (miles)	1.1	7.8	2.2	4.8	2.4
Dam type rolled	Rolled earth fill	Rolled earth and rock fill	Rolled earth and rock fill	Rolled earth and rock fill	Earth and rock fill
Dam height (crest above streambed in feet)	105	240	98	138	95
Dam crest elevation	615	640	490	802	535
Dam crest length (feet)	460	1,385	840	970	690
Dam crest width (feet)	20	40	20	100	20
Dam base width (feet)	545	1,100	495	945	430
Cubic yards of fill	250,000	3,320,000	550,000	1,060,000	430,000
Outlet pipe diameter (inches)	36	49	36	50	56
Outlet pipe length (feet)	576	1,160	481	1,050	480
Outlet valves	Butterfly	Butterfly	Butterfly	Butterfly	Butterfly
Spillway type	Side channel	Chute	Chute	Chute	Chute
Spillway capacity (cubic feet per second)	10,600	40,600	5,261	55,480	11,000 est
Spillway crest elevation (feet)	606.9	625.0	483.5	777.2	525
Freeboard (feet)	8	15	6.5	25	10
Average annual yield (acre feet)	4,727	10,717	5,963	24,118	10,400

DAMS AND RESERVOIRS FACTS

(continued)

Name	Guadalupe	Lexington	Stevens Creek	Vasona	Uvas
Drainage area (square miles above dam)	5.9	37.5	17.3	43.9	30
Year constructed	1935	1952	1935	1935	1957
Reservoir capacity (acre-feet)	3,723	19,834	3,465	400	9,935
Reservoir surface area when full (acres)	79	404	92	58	286
Reservoir length (miles)	1.1	2.5	1.1	0.8	2.2
Dam type rolled	Rolled earth fill	Rolled earth fill	Rolled earth fill	Rolled earth and concrete buttress	Earth and rock fill
Dam height (crest above streambed in feet)	129	195	102	30	105
Dam crest elevation	627	665	545	305	500
Dam crest length (feet)	650	830	1,000	1,000	1,100
Dam crest width (feet)	20	40	20	20	20
Dam base width (feet)	650	1,370	620	153	600
Cubic yards of fill	520,000	2,124,000	530,000	70,000	800,000
Outlet pipe diameter (inches)	36	50	50	N/A	36
Outlet pipe length (feet)	720	1,314	680	20	880
Outlet valves	Butterfly	Butterfly	Butterfly	Sluice gates	Butterfly
Spillway type	Side channel	Chute	Side Channel	Concrete buttress and radial gate	Chute
Spillway capacity (cubic feet per second)	9,860	32,100	16,400	23,000	Not Det.
Spillway crest elevation (feet)	617.3	649.9	534.8	295.0	487.5
Freeboard (feet)	9.7	15	10.2	10	12.5
Average annual yield (acre feet)	5,080	21,102	4,910	--	27,100